2005

Second Language Learners' Recognition Of Unknown Words

Chai-Wei Lin
University of Central Florida

SECOND LANGUAGE LEARNERS' RECOGNITION OF UNKNOWN WORDS

by

CHAI-WEI LIN
B.A. National Taipei University of Technology, 2004

A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Arts
in the Department of Foreign Languages and Literature
in the College of Arts and Sciences
at the University of Central Florida
Orlando, Florida

Summer Term
2005

ABSTRACT

Recent research has underscored the important role of second language (L2) vocabulary acquisition in the reading process. The present study examined how accurately eighteen learners of English as a Second Language (ESL) were able to identify unknown words within a reading passage. It is assumed that "noticing" unfamiliar words in a text plays an important role in being able to extract meaning from context, which may ultimately result in word learning; thus, whether or not learners are able to recognize unknown words as unknown is a key step in vocabulary learning.

The design of this study was based on previous research (Laufer and Yano, 2001) on the connection between first language background and self-assessment of L2 word knowledge. The first three steps of the Lafuer and Yano study were used in this study. In the first step, ESL learners self-assessed their ability to identify selected words in a text. After this, L2 learners explained or translated the meanings of the words. Finally, the two sets of data were analyzed to measure correlations.

The findings of the study showed that teachers, as well as learners, should not underestimate the importance of vocabulary. Instead, they should provide more explicit vocabulary instruction and practice. In addition, L2 learners need to learn to identify words that are unknown. The act of "noticing" unknown words and identifying them as such is the initial step towards building vocabulary through reading. Lastly, L2 learners should not rely solely on context clues for the "guessing" strategy when they have a limited level of vocabulary because they may develop mistaken word knowledge, which

would impact reading comprehension. Instead, learners should develop a wide range of strategies to comprehend academic reading.

To my mother, Kuo-Chin Chiang, who supported me all the way and never gave up on me. I am glad to have her as my mom and for providing me this opportunity for a better education. I also dedicate my work to someone special who, although not with me now, is always with me every step of the way in pursuing my dream. To my friends and family, may God be with you and fulfill your dreams.

ACKNOWLEDGMENTS

I am thankful for all the people that helped me accomplish this work. I am deeply appreciative for their help and support in getting me through the writing part, which seemed like a never-ending process. Without them, this work would not be possible.

First, I wish to thank my advisor and chair committee member, Dr. Keith Folse, who helped me through every step of the way towards the finish line. His knowledge, encouragement, and passion helped me keep going until the work was finished. I also would like to thank my committee members, Dr. Consuelo Stebbins and Dr. Kerry Purmensky, who were very supportive of my thesis. I would like to especially express my gratitude to Mrs. Myra Creasman, the director of Center for Multilingual Multicultural Studies (CMMS), and the three teachers who allowed their students to participate in this study. In addition, I want to thank Dr. Gary Gau for being my statistical consultant and helping me run all my stats.

Furthermore, I want to thank my friends and family who have helped me survive the tough times and share my joy through the good times. I thank my mom and dad, Kuo-Chin Chiang and Chung-Hsiung Lin, for their support in my studies at UCF. I thank, Dr. Mei Mei Tsai, the one who introduced me to studying at UCF. I thank her for this wonderful experience. This work shows the fruitful experience I have gained. Last, I thank my friends in Taiwan, although they are far, far, far away from here, they have supported me in every way.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

NATURE OF THE STUDY

Introduction

Reading is a crucial skill that foreign students depend on to get through their education in a second language (L2) academic environment; furthermore, it plays a significant role in consequential social activities (Huckin & Bloch, 1993; Peregoy & Boyle, 2000). Noticing the important role that reading plays in the academic environment, researchers have studied L2 reading over the years (Huckin & Bloch, 1993; Paribakht & Wesche, 1997; Parry, 1997). With more knowledge in understanding L2 reading nowadays, most researchers concluded that vocabulary is the key to reading and comprehension (Huckin & Bloch, 1993; Hughes & Chinn, 1986; Laufer and Yano, 2001). In fact, their results often show that limited vocabulary is the main problem in second language reading.

In addition, it is essential for second language learners to develop a large vocabulary for second language reading because one of the main differences between first language reading and second language reading is the lack of word knowledge in L2 reading (Huckin & Bloch, 1993; Laufer, 1997; Tschirner, 2004; Waring, 1995). Laufer and Yano (2001) pointed out that mastery of the entire lexicon in any language is very difficult. If native speakers have difficulties mastering it, L2 learners certainly would

have more challenges to face in mastering a second language because they need to build word knowledge in which native speakers already had the advantage of vocabulary development in their early years. Native speakers have had many years of training in building vocabulary (Schmitt, 2000; Laufer, 2003). Thus, in order to comprehend more, L2 learners must learn more vocabulary (Critchley, 1998; Tschirner, 2004). Knowing more words is also a characteristic of a good reader, as Coady (1987) stated, "good readers not only comprehend more but they also know more words and learn new words easier" (p.18). However, even if second language learners master a certain level of language proficiency to proceed in the academic program, with their mastered grammatical structures and knowledge of a good deal of vocabulary, they will still encounter new words unfamiliar to them (Parry, 1997).

Researchers have studied methods to assist L2 learners in vocabulary development, and they have explored many vocabulary learning strategies to facilitate the development (Fan, 2003; Fraser, 1999; Gu & Johnson, 2001; Nation, 2001). The most common strategies are memorizing word lists and reading aided with dictionaries (Fox, 1989; Grabe & Stoller, 1997).

Researchers have paid special attention to the role of guessing as an important strategy when encountering unfamiliar words (Dycus, 1997; Folse, 2004a; Huckin & Bloch, 1993; Nation, 2001). Vocabulary experts have found that due to lack of vocabulary in reading, the learners must establish a certain minimum size of vocabulary to be able to comprehend a text (Laufer, 1997; Qian, 1999; Waring, 1995). This threshold hypothesis of reading comprehension is that there is a threshold level, a certain minimal

size of vocabulary, where the learners will be unable to comprehend well until the learners exceed this size of vocabulary. Upon attaining this level, the learners could then apply strategies for comprehension and succeed in reading. Therefore, unless the learners reach a solid level of language proficiency, the learners will have no use of strategies that were taught to help vocabulary building (Laufer, 1997).

Furthermore, lack of vocabulary becomes problematic and critical for L2 learners when they need knowledge of the text immediately. Researchers discovered that lack of vocabulary knowledge is the key problem for L2 learners with low reading comprehension (Hughes and Chinn, 1986; Laufer, 1997; Segler, Pain & Sorace, 2002). When reading a passage, L2 learners often encounter problems dealing with vocabulary. These problems are often lack of word knowledge, misleading guidance from the text, or mistaken knowledge (Laufer, 1997). Since comprehension is the key to understanding a text (Diaz-Rico, 2004), such lexical problems interfere in the process of reading comprehension (Laufer, 1997).

These lexical problems become serious when learners think they know the meaning of the word, but do not really know the meaning (Laufer, 1997). As a result, learners do not learn from these mistakes, but continue comprehending with mistaken word knowledge (Huckin &Bloch, 1987). Hence, L2 learners should “notice” the word as unknown when encountered. The ability of “noticing” unknown words is a prerequisite to being able to guessing the meaning of the word or trying to construct meaning of the word (Laufer, 2003).

Statement of the Problem

Laufer and Yano (2001) pointed out that "the vocabulary of foreign learners who are high school graduates and even university students does not amount to a quarter of the vocabulary known by their native speaking peers," and yet they "are expected to read authentic academic texts which were not written for people with limited vocabulary and are therefore bound to contain many words unfamiliar to the learners" (pp.549-550). This is true for many second language learners who wish to proceed in higher education. Since reading is the main skill L2 learners use in academics, their lack of vocabulary hinders the reading comprehension needed to succeed in the academic environment. L2 researchers suggest using reading strategies to comprehend the text.

When encountering an unfamiliar word, vocabulary-learning strategies, like guessing or inferring from content, are advised (Huckin & Bloch, 1993; Laufer, 2003, Laufer & Nation, 1985; Waring, 2001). However, these suggestions come from research based on first language acquisition and the targeted subjects are often children, so it is not logical to use these suggestions when L2 learners are at disadvantage of limited vocabulary and in need of speeding up the learning process (Dycus, 1997; Folse, 2004a).

Furthermore, the learners need to notice that they do not know a given word in order to realize that the word is unknown and needs to be learned. This is known as the "noticing assumption." Laufer (2003) stated it is assumed that "on encountering an unfamiliar word, the reader notices it as a word s/he does not know" (p. 568). Therefore, if second language learners have no awareness of the words they are not familiar with or do not know, they are unable to continue the process of learning the vocabulary to be able

to comprehend the text. By investigating further into Laufer and Yano's research in 2001, this current study would help understand L2 learners' ability in identifying unknown words.

Purpose of the Study

The purpose of this study is to explore further into Laufer and Yano's (2001) work in understanding second language vocabulary acquisition. This study examined how well second language learners can assess their knowledge of a given word. The procedures of this study were based on the three steps of the Laufer and Yano study: the self-assessment, translation, and data analysis. This research measured the extent to which L2 learners could identify unfamiliar words or "notice" them when encountered in a text. By investigating L2 learners' recognition of unknown words, this study was able to understand if learners were identifying words that they did not know, which is the first step in the process of learning vocabulary.

Research Questions

1. How accurate are L2 learners at assessing their ability to identify unknown versus known words?
2. When L2 learners encounter unknown words in a text, do they have the ability to "notice" the words as unfamiliar?
3. When encountering an unfamiliar word, what problems would affect their ability in develop accurate word knowledge?

Hypotheses

It is assumed that when learners encounter certain words in a text, they will identify the words as "known" or "unknown." This "noticing" assumption is logical if learners could identify well the words that they do not know. This research study investigated further into this assumption.

In this study, twenty words were chosen from a text and were the lexical items to be thoroughly analyzed later. It is hypothesized that L2 learners will know at least half of these words and that they can distinguish know from unknown words with at least sixty percent accuracy.

1. Basic words would be well recognized and highly comprehended.

   Examples: *like, habits, showers, tourists, electricity, villagers, wells, decade, biggest, complex*

2. More advanced words would be misidentified as known words, and the learners would mistake the meaning of the words.

   Examples: *trekking, fuels, local*

3. Words that have more than one meaning, or idiomatic meaning would be words the learners would have no clue of meaning.

   Examples: *broken out, launch*

4. Words that are identified unknown, because of the learners' lack of word knowledge.

   Examples: *damaged, fragile, reefs, threatened, deforestation*

In addition to the above hypotheses, a hypothesis was made for each of the twenty words, including a description of the reasons why the learners would know or not know the word:

1. *Damaged* would be a word the learners would not know because of their lack of word knowledge.
2. *Fragile* would be a word the learners would not know, except for the Spanish speakers because they have a cognate word.
3. *Trekking* would be a word the learners would know partially and would misunderstand.
4. *Like* would be a basic word the learners should know.
5. *Reefs* would be a word the learners would not know because of their lack of word knowledge.
6. *Fuels* as a verb would be a word the learners would mistake for a noun.
7. *Threatened* would be a word the learners would not be familiar with.
8. *Habits* would be a word the learners should know.
9. *Showers* would be a word the learners should know.
10. *Deforestation* would be a word the learners would not know, except for the Spanish speakers because they have a cognate word.
11. *Tourist* would be a word the learners should know through prior knowledge.
12. *Electricity* would be a word the learners should know through prior knowledge.
13. *Local* as a noun would be a word the learners would mistake for an adjective.
14. *Villagers* would be a word the learners would know.

15. *Wells* would be a word the learners should know.
16. *Decade* would be a word the learners should know.
17. *Biggest* would be a word the learners should know as a basic word.
18. *Broken out* would be a word phrases the learners would mistake because of its idiomatic meaning.
19. *Launched* would be a word the learners would misread and not know the actual meaning.
20. *Complex* would be a word the learners would know.

Limitations of Study

As with all controlled research studies, the current study has several limitations. First of all, prior knowledge and topic interest of the text were not considered but may be a factor in the study. Whether the text chosen for the study interested or did not interest the participants was not taken into consideration. Neither was establishing whether or not the student had prior knowledge of the topic taken into consideration. Second, the text was approximately 200 words; therefore, the content was limited and did not contain a large amount of surrounding content. In addition, the target words were not often repeated. Lastly, the study used a small sample of participants, which was very limited, and the majority of the participants were of one population. It did not exemplify for the various cultures of the whole population of L2 learners.

Application

This study explores the initial step of second language vocabulary acquisition, i.e., noticing new words and being able to identify these words as unknown. This is the essential step in the process of learning words. The results of the study would help understand learners' ability in recognizing words they are not familiar with. Therefore, teachers and instructors could use this information to give suitable vocabulary instruction in training students to understand the importance of recognizing words that they are not familiar with.

This study also investigates lexical problems in using context clues. Learners are taught many strategies in learning vocabulary; however, some strategies may become problematic for learners. The analyzed data would help teachers and instructors understand problems learners face when trying to develop meaning of new encountered words.

CHAPTER TWO

LITERATURE REVIEW

Importance of Reading

Many foreign students studying at the tertiary level struggle to survive in the academic world. Reading is the main skill that is used to get these students through college or graduate school (Huckin & Bloch, 1993; Laufer, 2003; Laufer & Yano, 2001). They rely heavily on reading more than any other skill (listening, speaking, and writing) in the academic environment. They depend on reading to be able to study their textbooks for an upcoming exam, to be able to read articles to write up papers on specific topics, and even to get by on their daily academic life. Many of these students have had English as Foreign Language/English as Second Language (EFL/ESL) training prior to entering the academic program (Parry, 1997). They went to language learning programs improving on their proficiency levels to be able to compete in the academic world with their native-speaking classmates. They took courses to develop the four language skills (reading, writing, speaking, and listening), especially with an abundant amount of reading.

To be able to read like a native and compete with their peers in the academic environment, obviously the foreign students would need to be able to comprehend the

text (Laufer & Yano, 2001). They need to read articles for assignments, read to study for an exam, read to write papers and other assignments, and read their textbooks. However, these foreign students, unlike their native peers, need to learn to comprehend a second language. To comprehend the language, the learner must understand the words because "words are the building blocks of the language" (Golinkoff & Hirsh-Pasek, 2000, p.4). These students trying to understand the language will need to knowledge of the words first. Clearly, knowing the words in the text is the initial step in reading.

On the other hand, being able to read the text and understand the words in a second language (L2) is not an easy task. In fact, it is more complicated for second language learners, because their vocabulary development is not at the level of proficiency like their native language. Therefore, comprehension is a difficult task, and reading is a tough skill to master. Moreover, time is of the essence for these foreign students (Folse, 2004b). They need to read like a native during their studies in college or graduate school, and not after they graduate with a low grade point average (Parry, 1997). These L2 learners must learn the language and be able to show proficiency for them to be able to get through the courses. A native speaker would have had double the years in experience in language learning (Schmitt, 2000). Thus, for a foreign student, learning a second language in limited time to the level of a native speaker is extremely challenging. Most of these L2 learners must achieve proficiency in a limited amount of time, so they do not have the luxury of learning the language with the time needed to build an extensive amount of word knowledge (Folse, 2004b). Therefore, L2 vocabulary acquisition is much different than L1 vocabulary acquisition (Schmitt, 2000).

Clearly, reading is the essential skill that L2 learners must obtain to achieve academic success (Huckin & Bloch, 1993; Parry, 1997). Researchers have shown that reading comprehension relies strongly on vocabulary, more strongly related than any other components in reading (Folse, 2004b; Huckin & Bloch, 1993; Laufer, 1997).

Research in Vocabulary

"Vocabulary is basic to communication, and often seen as the greatest source of problems by second language learners" (Segler, Pain & Sorace, 2002, p. 409). Research in the past studied other aspects of second language learning such as grammar, syntax, anxiety, and learning styles, leaving out the importance of vocabulary (Folse, 2004a). Now that has changed with the realization of the importance of vocabulary in reading, since reading comprehension is strongly related to vocabulary knowledge (Laufer, 1997). In addition, researchers discovered the main obstacle for L2 readers is lack of sufficient vocabulary knowledge (Folse, 2004b; Huckin & Bloch, 1993; Laufer, 1997). Therefore, vocabulary knowledge is the most important aspect in reading, and insufficient vocabulary is the number one problem L2 readers face. As Folse (2004b) stated, vocabulary acquisition is the key to the source of L2 learners' problems.

Since vocabulary plays such a critical role in language learning, researchers have investigated ways to build up vocabulary acquisition in order to facilitate second language reading (Coady, 1987; Fan, 2003; Fraser, 1999; Gu & Johnson, 2001; Nation 2001). Schmitt (2000) outlined three lines of research in L2 vocabulary: (1) vocabulary acquisition and development, (2) research on word associations, and (3) research based

on L1 acquisition to understand more of L2 acquisition. There has been an abundant amount of research in the last line of work. Much of recent L2 research explores the findings of the research studying L1 acquisition to help develop more answers to how a second language is acquired. Research studies now have taken a step further in exploring L2 vocabulary acquisition by investigating second language learners' development of vocabulary and experimenting with different vocabulary learning strategies to find ways to facilitate the vocabulary learning process.

Breadth and Depth of Word Knowledge

It is essential to build a large vocabulary when learning to read in a second language (Critchley, 1998). Second language learners need to build a large vocabulary in a short amount of time to match the vocabulary level of their native peers. Therefore, they must learn to understand words, their meanings and their usage, within their studies at the tertiary level. The time consuming process of building word knowledge must be heightened for L2 learners to be able to master a level similar to their native peers, because these learners do not have the luxury of learning a second language with the amount of time when they were learning their first language (L1).

With the increasing demand of academic English, researchers studied the vocabulary size of native speakers in order to understand how much vocabulary these L2 learners need to build on (Laufer, 1997; Laufer et al, 2004; Qian, 1999; Tschirner, 2004). Without a sufficient level of English proficiency, L2 learners will encounter comprehension problems when reading their academic passages and articles. In addition,

researchers examined the level of word knowledge that L2 learners should have by studying what knowing a word entails (Laufer et al, 2004; Qian, 1999).

Learners' Goals: How Much Vocabulary Should L2 Learners Know?

According to Tschirner (2004), the essential factor for efficient reading and academic success is vocabulary size. Nation (as cited in Laufer, 2003) estimated the vocabulary knowledge of a native high school student is about 20,000 word families, which is about 32,000 lexical items. "A 'word family' is a group of words that share the same meaning" (Waring, 2001, par. 4). Additionally, Schmitt (2000) estimated that the vocabulary size for native university graduates is about 20,000 word families. Therefore, in order for L2 learners to master the level of vocabulary at the tertiary level, they must learn 20,000 word families. Mastery of the entire lexicon of the language is daunting for native speakers; it is even more so for L2 learners (Laufer, 2003; Schmitt, 2000).

On the other hand, Nation (2001) suggested that the decision on the amount of vocabulary needed should depend on "the number of words in the language, the number of words known by native speakers, and the number of words needed to use the language" (p. 6). Waring stated that proficient learners would need about 3,000 word families, and learners with knowledge of 5,000-6,000 words could be labeled advance learners. Therefore, the amount of vocabulary L2 learners needed in order to comprehend effectively would depend on the area of their academic study.

Laufer (1997) pointed out that there is a threshold level that L2 learners have to reach for effective reading. Since reading comprehension relies strongly on vocabulary,

L2 learners need to learn a large vocabulary. The threshold hypothesis is that in order for L2 learners to comprehend there is a language threshold where they must reach. Waring (1995) suggested, to alleviate the problem of insufficient word knowledge, learners must build a wider and larger vocabulary. The question of how much L2 learners must know to pass the language threshold level remains (Laufer, 1997).

Word Knowledge: What Does "Knowing" a Word Mean?

Knowing a word involves more than just knowing the meaning of a word. In fact, lexical knowledge consists of various levels of knowledge (de Groot, 2002). August et al. (2005) imply that lexical knowledge also includes its various connotations, syntactic constructions, morphological options, and semantic associations. Nation (as cited in Schmitt, 2000, p.5) proposed that in mastering a word, the knowledge of the word must contain:

- the meaning(s) of the word
- the written form of the word
- the spoken form of the word
- the grammatical behavior of the word
- the collocations of the word
- the register of the word
- the associations of the word
- the frequency of the word

The process of lexical development is often developing the meaning of the word first, and then, developing the grammatical/morphological knowledge of the word (Schmitt, 2000). The lexical process of learners learning a second language is often based on the lexical process in the learners' first language (de Groot, 2002). However, L2

learners often use their knowledge of their L1 as reference in understanding the meaning of the word. In building a mental lexicon, L2 vocabulary learning is not the same as their L1 vocabulary learning because the learners' knowledge of the L1 vocabulary is used as a reference point in to comprehend L2 vocabulary and often translating words from L1 into L2. According to Schmitt (2000), L2 acquisition is obviously different from L1 acquisition, because L2 learners have experiences in learning one language already. These learners are older and more cognitively mature, and learn vocabulary differently from children. However, there is the possibility that during the vocabulary building process, the learners create insufficient word knowledge and false comprehension. (This problem is discussed later in the Problems of Learners section.)

In contrast, Bogaards (2001) argued that no true theory has been proposed about lexical development and pointed out that most researchers see the idea of vocabulary acquisition as a matter of learning words. Bogaards noted that vocabulary acquisition also includes learning new meanings of well-known words, or a combination of well-known words that are unpredictable using the basis of its meanings, such as idioms. In addition, Bogaards investigated what constitutes a knowing or not knowing a word and examined the notion of "words", which should be replaced with the notion of "lexical units" (p.323). Learners have to learn a few particular contextual uses of the word before they can learn the knowledge of the word as a whole because "words are always used in a particular content" (p.325).

The example Bogaard gave was the word *party*. The example sentences were (p.324):

1) Our neighbors are throwing a *party*.
2) They were very grateful to the rescue *party*.
3) The Conservative *Party* has lost many votes.
4) The lawyer refuted the arguments of the other *party*.
5) Your *party* is on the line.

The word *party* in each sentence is used with a different meaning. For a learner to understand each meaning fully and accurately, the learner would understand the knowledge of the word as a whole. Therefore, L2 learners have to learn words in particular content one at a time. However, when learners encounter words that have to be together to form a certain meaning, lexical units are a better notion for learners to learn.

Bogaards defined lexical units to follow two criteria: "at least one semantic constituent" and "at least one word" (p. 325). Since there are many lexical units, far more than there are words, for a L2 learner to fully attain word knowledge, many aspects need to be learned about every lexical unit. Results of Bogaards' study investigating lexical units showed that single words are harder to retain than multiword units with the same meaning, but using familiar words. Word knowledge does not consist of knowing just the words, but also as a group of words. It is easier to retain word knowledge as lexical units.

Vocabulary Acquisition

"Words make a language" (Clark, 1993, p. 1). Therefore, in order to understand a language, comprehension of the words is the first step. Schmitt (2000) stressed that vocabulary acquisition is an incremental process, not all components of word knowledge

happen simultaneously. Even vocabulary researchers with their various theories see that building a model of vocabulary development is complex (Waring, 2002). Since certain word knowledge develops at different times, there is not much knowledge of how the word knowledge develops together. There is also a lack of research on the acquisition of multiple types of word knowledge occurring at the same time (Schmitt, 2000). However, there are many degrees of comprehension, just like there are many levels in understanding word knowledge, starting from spelling of the word to definition of the word to understanding its usage to producing the word in a sentence.

The Process of Understanding Unknown Words

According to Laufer and Yano (2001), "vocabulary learning is a never ending process in one's native language, let alone in a foreign language" (p. 549). Thus, the process of vocabulary development is more difficult to accomplish in another language. Second language learners have less time to build their vocabulary than native speakers; yet, they need to accomplish a level of vocabulary before they become proficient language learners.

To speed up the never-ending process, research promotes learning vocabulary through reading as the most resourceful way to accumulate vocabulary knowledge. However, Laufer (2003) pointed out that this hypothesis is based on four assumptions, which are the steps to the vocabulary building through reading process. These four assumptions are: the noticing assumption, the guessing ability assumption, the guessing-retention assumption, and the cumulative gain assumption (p. 568).

"Noticing" an unfamiliar word is the first step of understanding of the word (Laufer, 2003). It is assumed that when L2 learners encounter words unfamiliar, they would "notice" the words and recognized them as unfamiliar or unknown words. Gass (cited in Laufer, 2003) referred this unfamiliar word as an apperceived input and that Schmitt (cited in Laufer, 2003) considered the noticing or attention to the word an essential condition for learning. "Noticing" unfamiliar words is the prerequisite for the next assumption.

"Guessing" is the next step in understanding a vocabulary item (Laufer, 2003). It is assumed that when learners encounter unfamiliar words, they would infer the meanings of the words from context clues. It is often suggested by researchers and instructors to use the guessing strategy to infer meaning by using context clues. This suggestion is based on the large population that succeeded in using the guessing strategy to gain comprehension of the text.

Retention is the step after guessing (Laufer, 2003). It is assumed that after guessing the meaning of the word has been accomplished, the meaning is retained in long-term memory. However, Laufer (2003) pointed out that comprehension is not retention because learning a word is more than learning the meaning of the word.

Cumulative gain is an reoccurring step in the never-ending vocabulary learning process (Laufer, 2003). It is assumed that over addition exposures that the word would be learned if not learned the first time encountered. Very few words are retained immediately after reading a text; therefore, the cumulative gains happen over time after

repetitive exposures. This would be a remarkable gain if the learner read on a regular basis.

Nevertheless, if the first step of "noticing" words and recognizing them as unknown words does not take place, then, the process of vocabulary learning does not begin. Hence, it is essential for the first step of the process to take place. If the learners do not noticing the word as unknown and learn the word, they assume meaning that becomes lexical problems in reading. These reading problems affect reading comprehension. Therefore, the question is how well do L2 learners know or "notice" the first step. This research studied how good L2 learners are at noticing unfamiliar words and how well they guess the meaning of the words.

Vocabulary Learning Strategies

Studies have found that learners tend to use a combination of various strategies and adopt different kinds of strategies based either on their needs or beliefs about vocabulary and language learning (Fan, 2003; Fraser, 1999; Gu & Johnson, 2001; Nation 2001). Learners employ a wide range of vocabulary learning strategies. The most common strategies are memorizing word lists and reading aided with dictionaries (Fox, 1989; Grabe and Stoller, 1997).

Fraser (1999) investigated the lexical processing strategies (LPS) used during reading when adult ESL learners encountered unfamiliar words. The purpose of Fraser's study was to understand more about how vocabulary can be gained through reading and whether incidental vocabulary is learned through inferred word meanings. Fraser

examined eight intermediate level students studying at the university to find out what LPSs second language learners use and the influence of these strategies on vocabulary learning. The LPSs that second language readers used while encountering unfamiliar words were in three strategic categories: (1) ignore and continue reading, (2) check a dictionary or consult with other individuals, or (3) infer word meanings based on linguistic and contextual cues.

The result of Fraser's study was that learners use consulting and inferencing strategies more than ignoring and continuing reading. They used LPSs that were more productive to word learning. Learners were generally successful in determining a meaning that helped facilitate comprehension when both consulting and inferencing strategies were used. Fraser also found a wide range of differences in the learners' retention of vocabulary words. Providing a L1 synonym was more effective for retention than providing a L2 synonym. This implied that a simple expression of word meaning in L1 was most effective for learning.

In contrast, Gu & Johnson (2001) considered vocabulary not as objects in isolation but as a skill to be developed and improved on. They found out that the size of vocabulary highly correlated with language proficiency, and that students also benefited more if they focused on learning the language skills rather than just remembering English equivalents of all their native language words. The most successful learners were those who actively used a wide range of vocabulary learning strategies. The study suggests that learning the skill of recognizing a word in natural contexts, the skill of guessing the

unfamiliar words' meaning and the skill of using a word appropriately were more important than just remembering the form-meaning association.

In addition, Fan (2003) investigated strategies that were used most and least by learners and what the learners perceived as the most and the least useful strategies. Fan discovered that proficient learners tend to obtain their vocabulary by using guessing instead of consulting dictionary, but the findings also implied that students do need both guessing and dictionary strategies to learn new words, which is supported by the findings of Gu and Johnson (2001). This finding indicated neither category should be emphasized to be used as a single strategy nor extended only in one area of L2 learning. However, strategies should be used together in various ways.

Fan's study suggested there was a positive relationship between learner's perspective and strategy use: the more learners consider certain strategies important, the more frequently they used them. There were three types of strategies found which were more frequently used by the L2 learners with proficient second language vocabulary. These strategies were suggested for vocabulary learning and second language vocabulary instruction (p. 235):

1. Strategies which are considered to be effective and often used by proficient learners, such as using the dictionary to find out the context meaning of the new and unfamiliar word which can facilitate them in reading.
2. Strategies which are rarely used but found to be associated to high vocabulary proficiency and are considered to be helpful, such as management and sources in strategies.
3. Strategies which are rarely used and not considered very helpful, but are used significantly more frequently by more proficient students than by students with lower vocabulary proficiency, such as self-improvement in learning vocabulary and usage of dictionary to figure out the proper usage of the unfamiliar words.

Kojic-Sabo and Lightbown (1999) analyzed learners according to the vocabulary learning strategies or set of strategies that would influence their approach to learning. Kojic-Sabo and Lightbown noted that learners' differences were related to vocabulary learning profiles of the two most successful groups. It was also found that English as a foreign language (EFL) learners were more likely to utilize a review strategy than English as second language (ESL) learners. The ESL students also performed a greater creativity in their selection of reviewing techniques. Successful language learning is obtained in different ways, especially with various types of learners.

Lotto and de Groot (1998) examined how the method of learning and word type influenced vocabulary acquisition. The research findings were that learners had better performance through word learning than picture learning and that cognates and high-frequency words were learned faster than noncognates and low-frequency words. This suggested that second language learners rely more on first language translations than with aid materials such as pictures. Moreover, learners learn words that appeared frequently.

The "Guessing" Strategy and Using Context Clues

Previous research in reading suggested using strategies like guessing, inference from content, or predicting to facilitate reading. Guessing meaning of unknown words by using clues from surrounding context was then main approach reading textbooks used to teach L2 learners vocabulary (Haynes, 1993). Current research in second language vocabulary examine if this strategy is the most reasonable tool for vocabulary learning

(Dycus, 1997; Folse, 2004a; Huckin & Bloch, 1993; Laufer & Nation, 1985; Nation, 2001).

Laufer and Nation (1985) provided an essential reason for guessing for meaning when encountering unknown words. “Guessing the meaning of words from context is the most important strategy for dealing with low frequency vocabulary in written text” (p.33). Usually low frequency words occur unpredictably so learning these words in advance is difficult. When encountering these words in a text, it is better to infer the meanings of the words using context clues than spend time on learning them beforehand. Thus, researchers encourage guessing from context. Not all low frequent words can be taught before reading the text, so it is much simpler to guess the meaning. It is crucial that the guessing strategy should be used when encountering words that do not need much effort to be learned, and not for all the words (Laufer & Nation, 1985).

As Laufer and Nation pointed out, “it is best to make sure that there is plenty of known surrounding the text” (p.35). If there are too many unfamiliar words surrounding the text, then it is difficult to find context clues. In Laufer and Nation’s study, they discussed that background knowledge of the subject of the passage is the key to successful guessing, so they advise that the guessing strategy should be used in class activities focusing on nouns and verbs with plenty of familiar text surrounding the unknown words. Therefore, when L2 learners master the skill, the strategy would be a useful tool to guess low frequency vocabulary. Folse (2004b) also pointed out that learners have to develop a large vocabulary in order to successfully guess the meanings of unfamiliar words using context clues.

Huckin and Bloch (1993) studied three intermediate level non-native speakers to develop a general theory of second language word guessing strategies. The participants were three graduates from China studying at least three years in the United States. The results showed that the students relied mostly on context clues for guessing when encountering unfamiliar words in their course reading and would succeed in guessing when they did so. However, the most common reason for failures in guessing was when students considered themselves as comprehending a word, but in fact they did not make a *real* guess. Huckin and Bloch (1993) called this "mistaken ID" for misidentifying the meaning of the word.

Another major factor in unsuccessful guessing was when the students detour around the meaning and avoided the word. Huckin and Bloch called this "potholes" for avoidance of the word. Usually the students would know that the inference they made was misleading but had no clue to the actually meaning of the word, so they avoided it. The third reason was "incomplete knowledge." There were a few occasions when the students had partial meaning of the word, but still could not develop the full meaning with context clues. Huckin and Bloch used the data to create a system, which second language learners use to test their vocabulary knowledge. They found out that vocabulary knowledge became the source of translation task and when the student knew the word, it was an advantage, but when the student did not know the word, and relied much more on vocabulary knowledge, it often became a serious problem when the word was not thought of being known. It often became an error the student did not correct, because the word was thought of being understood.

Nation (2001) noted that they are many factors that cause poor guessing. A significant difficulty shown in guessing words from context is the form of the word to be guessed, and often L2 learners make many inferences based on known words that have some formal similarities to the unknown words. Sometimes, these incorrect form-based guesses affect learners developing the grammatical context to fit their incorrect guesses. Another important factor that affects guessing from context is the similarity between the learner's first and second language.

Nation suggested that a good guesser uses several clues, checks various types of clues against each other, does not let the form of the word play too large a part, and does not make a guess casually. Those learners who recalled more words used a greater range of strategies. Elaboration strategies were found to be more effective than repetition and word feature analysis strategies, although repetition strategies were the most often used strategies. Moreover, Nation suggested ways to help learners comprehend and learn from definitions:

1. Provide clear, simple, brief explanations of meaning.
2. Draw attention to the generalizable underlying meaning of a word.
3. Give repeated attention to words.
4. Help learners recognize definitions.
5. Prioritise what should be explained about particular words.
6. Help learners remember what is explained.
7. Avoid interference from related words. (pp. 91-92)

Dycus (1997) argued if encouraging guessing word meaning would be the essential strategy when encountered unknown words. It was noted that much research in second language reading was based on first language reading and the strategies encouraged were used to speed the process of acquiring a large vocabulary in a second

language to match with a native in a short amount of time. However, the argument becomes a paradox when the learner has limited vocabulary in the second language. The guessing strategy has limited effectiveness when understanding of the vocabulary in the text is not at a proper level.

Another noted point is that much of the existing research is based on children (Dycus, 1997). Laufer (2003) stated that claiming reading to be the source of vocabulary growth in L1 is based on research conducted with children in their primary and secondary school years. Native speakers often develop a suitable level of vocabulary to be able to guess at the meaning of words they do not know starting when they are young children. Therefore, they can rely on their vocabulary knowledge to make proper guesses and would often be accurate. Native speakers are at an advantage because they used this strategy when they were young and they have built a proper level of word knowledge so their guessing most often would be correct. Therefore, native speakers can either skip the unfamiliar word or guess the word meaning when they encounter unknown words (Haynes, 1993).

Lastly, Haynes (1993) stated that ESL textbooks were written to facilitate learners in developing vocabulary guessing skills by adding redundant context in the text. There are extra definitions or extensive clues when new words appeared encouraging learners to guess meanings from context. The learners often have a better chance at guessing successfully with the added material. However, when learners read materials native speakers read, they do not have the luxury of having the added material in the text to

assist them in succeeding in guessing correctly. Not surprisingly, this is often when learners encounter problems.

These evidence show that guessing is encouraged, but not all the time, not with all learners, nor all texts (Dycus, 1997). It should be the main strategy used in learning vocabulary and that further research should find ways for adult L2 learners to learn vocabulary through instruction and exposure. Sometimes, it is not a fruitful strategy as it is seems, and L2 learners should learn other strategies when guessing fails (Haynes, 1993). As Folse (2004b) puts it, “no vocabulary learning strategy is a substitute for knowing vocabulary”, and “no single strategy is better than another” (p.8).

Learning Strategies in Vocabulary Learning

There are many vocabulary learning strategies in every step of vocabulary acquisition. Hatch and Brown (1995) analyzed a model of five essential steps of vocabulary learning based on the results of the Brown and Payne’s study of learning strategies in 1994. The results of the usage of learning strategies clearly showed that learners used strategies that fall into five steps of learning new words: (1) encountering new words, (2) getting the word form, (3) getting the word meaning, (4) consolidating form and meaning into memory, and (5) production of the word.

The first category of strategies is providing sources encountering new words, so the initial step in vocabulary learning is encountering new words, which means creating a word bank. Extensive reading helps build vocabulary, which is crucial for L2 learners. L2 learners can gain a mass amount of vocabulary from reading extensively. However,

Laufer (2003) questioned whether reading was the best way to gain vocabulary knowledge and conducted a study on 60 university students rated as advanced learners. She found out that vocabulary focused activities can be more productive than reading. Even though vocabulary is the key to reading, reading is not the key to vocabulary building.

The second set of strategies is to aid in getting the word forms by using auditory or visual aid. Sometimes word association would facilitate getting a clear image of the word form. L2 learners would also get the form of the word when they are trying to identify its meanings. By doing so, the learners create meaning and can define how the word is used.

The next step of strategy usage is trying to learn the meaning of the words. This set of strategies is in relation of the second set of strategies. However, this step is associated with the vocabulary learning process, which is the goal of vocabulary building. For this step, there are many ways of getting definitions, such as dictionaries, translations, and context clues. These are discussed earlier.

The fourth category is committing the word forms and its meanings to meaning. This is similar to the fourth assumption in Laufer's study (2003), which is retention. L2 learners need to memorized the word form and its meaning, so in the future when the learners encounter the word in the text, they will know the word. The strategies used are semantic mapping, word associations, and mnemonic devices.

The last step in vocabulary learning is being able to use the learned words. It is essential for L2 learners to be able to produce the learned word. All students must face

writing assignments. They must build word knowledge in order to produce it in their writing. This step will also help L2 learners continue to learn vocabulary and build on the knowledge they have.

These are the steps of vocabulary development formed by vocabulary learning strategies. During this never-ending process of development, L2 learners created and form meaning and knowledge of the word. The vocabulary builds and shapes forming into a large word bank. However, during this process, L2 learners must deal with several problems. These problems are discussed in the next section.

Problems for Learners

Poor reading comprehension is often due to lack of vocabulary, but the L2 learners that build vocabulary knowledge slowly are even less to comprehend the text (August et al., 2005). There are many problems that L2 learners face during vocabulary development which hinder reading comprehension. These problems slowing vocabulary development can be summarized in three categories: (1) the problem of insufficient vocabulary, (2) misinterpretation of deceptive transparent words, and (3) inability to guess unknown words correctly (Laufer, 1997, p. 30). In other words, L2 learners mostly have problems with words that they do not know, words they think they know, or words they were unable to guess. These lexical problems can seriously interfere comprehension of the text causing insufficient reading comprehension.

First, if the L2 learners have insufficient vocabulary, reading comprehension is nearly zero comprehension; even using the reading strategies used in L1, the L2 learners'

understanding of the text is limited. Therefore, the L2 learners' must develop a threshold vocabulary to be able to read. If the L2 learners are below the threshold level, then they cannot succeed in reading.

Second, L2 learners misinterpret words and think they know the word when they really do not know the word. Laufer (1997) defined these words as "deceptive transparency" in that they often seem to provide the meaning in the words. However, they have "mistaken identities" as Huckin and Bloch (1993) interpret them. Idioms fall into this category, too. They have a different meaning than of the words themselves. Another are "false friends," which are words that have negative transfer, or false cognates. L2 learners assumed the meaning of their native language, because the words look similar in the second language. Words with more than one meaning often get neglected because the L2 learners assumed the meaning of the word when they really did not know the true meaning. Synforms are words with similar lexical forms. L2 learners would misinterpret the words because they misread the word for another similar looking word. These words may cause serious problems that influence reading comprehension, in that L2 learners would understand the word for their mistaken meanings or misread words. These mistaken meanings or misread words become incorrect errors that continue to be a mistake until the L2 learners understand the true meaning of the words.

The third problem in L2 reading is that some words cannot be guessed from the text, even using context clues. L2 learners are often told to use context clues to guess unknown words. However, without relevant surrounding clues, not all words can be guessed properly. If there are nonexistent clues, there is no way of guessing the meaning

of the word. If there are unusable clues, they are as good as nonexistent. Misleading clues lead L2 learners to either not able to guess the meaning of the word or guess the meaning incorrectly. Therefore, if the learner does not have sufficient clues surrounding the text, the learner will either make no guesses or make a guess that is completely wrong.

Parry (1997) studied two ESL students of different cultures to understand the problems of the learners after they leave the ESL classroom. Even though the two ESL students demonstrated good performance in mastering the English language, after going into an academic program, there were many signs of struggle, a problem that was reflected in their grades as well. Parry studied the strategies these learners used and how these strategies affected their ability in reading as well as their vocabulary learning. The data collected showed that a lack of better strategies gave them poor grades. These findings suggested that students need to develop more flexibility in vocabulary learning and that ESL teachers should focus on allowing students to use different approaches in higher level of language learning.

Laufer and Yano (2001) studied how accurately L2 learners identify words they do not understand and claimed that for L2 learners to guess the correct meaning of a word two things should happen. First, the words unfamiliar should be recognized as unknown. Second, the word has to be guessed with the right meaning. Yet, L2 learners may not be able to recognize words that they are unfamiliar with. In addition, they may never guess the accurate meaning.

In conclusion, L2 learners need to know if they know the word or not in order to make a guess and when they do guess, they may not guess the correct meanings of the

word. These lexical problems become serious when learners think they know the meaning of the word, but do not really know the meaning (Laufer, 1997). This unknown word knowledge becomes an error in vocabulary building, and instead of being able to correct this error in word knowledge, the insufficient word knowledge usually persists unknown building inadequate vocabulary. As Laufer graphically describe the process:

> "the process can be represented in to following matter: unawareness of ignorance of deceptive transparency (DT) words→misinterpretation of DT words→distortion of immediate context→using distorted context for further interpretation→distortion of larger context" (p. 27)

As a result, learners do not learn from these mistakes, but continue comprehending with mistaken word knowledge (Huckin & Bloch, 1993). The purpose of this current study is to research further into the question of how well L2 learners can distinguish between words they know and words they do not know.

CHAPTER THREE

METHODOLGY

Purpose

The purpose of this study is to further investigate the language learners' ability in identifying or "noticing" unknown words. This study is an extension of Laufer and Yano's work (2001), which shed some light on adult second language (L2) learners' ability to recognize known versus unknown vocabulary.

This study investigated how accurately second language learners identify unfamiliar words by assessing the students' ability to state (or guess) the meaning of words. This study explored how much vocabulary second language learners actually understood, as opposed to how much they thought they understood. This investigation assisted in understanding how second language learners defined the meaning of the word when they encountered words they knew that they did not understand, and whether they were able to make a correct guess in establishing true meaning.

Design of the Study

The design of the study was simple. It was based on the Laufer and Yano study in 2001. In this study, three sheets of paper were used in the investigation: the material, the

self-assessment sheet, and the translation/definition sheet. The material was a 200-word passage (see Appendix A) excerpted from the article “The Politics of Travel” by David Nicholson-Lord from The Nation (1997) vol 265, pp. 11-18. From this passage, 20 target lexical items were chosen to be assessed. These words were bolded in the text. A self-assessment sheet (see Appendix B) was based on the Laufer and Yano design of self-assessment sheet. The purpose of the self-assessment was for the participants to self-assess their ability in understanding each of the lexical words, rating 0 to 2 depending on how well the learners know the word. A score of 0 meant they did not understand the word, 1 meant there was some understanding of the word, and 2 meant that the word was fully understood. There was another assessment sheet (see Appendix C) for the participants to explain their understanding of the lexical items, either by translating the word in the participants’ native language or write a short definition in English. The translation/definition sheet was later graded 0 to 2, depending on the degree of their knowledge of the word. A score of 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, and 2 meant that translations/definitions were accurate. The assessment focused on the definitions and understanding of the words because the basic meanings is the first step of developing word knowledge. The text, the self-assessment sheet, and the translation/definition sheet were on separate sheets of paper.

Target Words

Twenty words were selected from the text and bolded in the text to show that they were the target words. The chosen words were: *damaged, fragile, trekking, like, reefs, fuels, threatened, habits, showers, deforestation, tourist, electricity, local, villagers, wells, decade, biggest, broken out, launched, complex.*

From the twenty lexical items, ten words were identified as words that learners would probably know, and ten were identified as probably unknown. These words were categorized based on the level of the participants. The level of the participants were at the intermediate level.

Participants

There were 18 participants in the study: 10 Spanish speakers, 3 Chinese speakers, 2 Korean speakers, 1 Portuguese speaker, 1 Bangla speaker, and 1 Turkish speaker. These participants were L2 learners of English in the Intensive English Programs at the language learning facility of a university. The learning facility placed their students according to the score on their placement test. The scores were based on the Institutional TOEFL taken prior to entering the program. The students were placed into four levels of proficiency. The beginning level of proficiency is Level 1, the low intermediate is Level 2, the high intermediate level is Level 3, and the advanced level is Level 4. The participants of the study were Level 3 students. They were at a high intermediate level of proficiency. This level was chosen because the learners would have enough vocabulary to understand most of the text.

Prior to conducting the study, permission to study on human subjects from the Institutional Review Board was obtained with the approval form (see Appendix D) and the approval letter (see Appendix E). There was also permission from the learning facility to conduct this study in their classrooms (see Appendix F). In addition, the teachers gave permission to conduct this assessment during class time prior to the study. All participants attended in the study on a voluntary basis, not mandatory, and were kept anonymous. They were all 18 years of age or older. Consent forms (see Appendix G) were handed out to state the purpose of the study and noted that all participants took part voluntarily and that any student less than 18 could not participate in this study.

Procedures

The participants were not told that they were participating in a vocabulary research study. Instead, they were told to do a reading activity as part of a regular reading lesson. The study took place during the students' regular class period for reading. The purpose was to lower their anxiety and anticipation towards the study, so it would not become a factor in the research. The consent forms were handed out to the participants prior to the study, and the participants were told that they were to participate in this study on a voluntary basis.

Step one.

The participants were given a 200-word passage with the selected lexical items bolded in the text and a separate self-assessment sheet, which was a word list containing the 20 lexical items shown with the line number next to it. There were three numbers

(0,1,2) next to the word for the participant to self-assess how well they comprehended the word. A score of 0 meant they did not understand the word, 1 meant there was some understanding of the word, and 2 meant that the word was fully understood. The participants were given a period of 15 minutes to read and self-assess their ability in understanding the words. They were to circle their rating for their ability to recognize each lexical item. Many of the participants finished at an earlier time, approximately ten minutes.

Step two.

After collecting only the assessment sheets, the participants were given another sheet of paper with the same 20 words. At this point, the participants were to write the translation of the word in their native language or a brief definition in English. The participants were given at least 15 minutes to complete the task. The participants were allowed to refer to the text to use context clues in guessing the meanings of the words or use other strategies they as preferred.

Step three.

When the participants were finished, the translation sheets were collected. Then, the self-assessment sheets and the translation sheets were kept in separate files. They were taken to be analyzed seeing if the learners could identify the words they were unfamiliar with and how well they could accurately produce the meanings of words they understood.

Data Collection

As soon as the data were collected, the translations and definitions were graded according to the level of accuracy. Three number grades were used: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, and 2 meant that translations/definitions were accurate. Proficient speakers in the students' languages—Chinese, Spanish, Korean, and Turkish—assisted in grading the translations. The researcher graded the Chinese translations, a thesis advisor graded the Spanish translations, a Level 4 student who had attended the program for a long period of time graded the Korean translations, and a student studying at the university graded the Turkish translations.

After the translation sheets were graded with numbers (0, 1, 2), the data were analyzed. Prior to conducting the study, four possibilities of analyzing the data were suggested after seeking advice from a statistics consultant:

a. Do a paired t-test, as in the Laufer and Yano study.
b. Do a correlation coefficient with all the participants.
c. Do a correlation coefficient by word (to see how well the participant self-assess themselves).
d. Do a correlation coefficient by groups of words (to see how well each group of words are assessed). The group of words should be categorized in the different level of words.

The fourth option was chosen at first; however, after further consideration, the third option was used to analyze the data. By analyzing each word, the researcher thoroughly examined how learners assessed themselves.

After consulting again with another statistics specialist, a paired t-test with considered correlation was advised. The suggestion was to improve on the paired t-test used in the Laufer and Yano study to eliminate data interpreted as unpaired data. The data collected were sets of correlated data; therefore, using a paired t-test with correlated data was advised. Another suggestion was to do simple correlation coefficient to analyze how accurately the learners were assessing themselves.

CHAPTER FOUR

RESULTS AND ANALYSIS

This study investigated how well L2 learners assess themselves at identifying known and unknown words. This study examined the ability of 18 intermediate level L2 learners in recognizing words that they knew versus words that they did not know. By assessing the learners' ability to state or guess the meaning of words, this study explored how L2 learners defined meaning of words and whether their established meanings of the word was accurate or not.

Results

The results of the study were taken to a statistical analyst for further consultation. The analyst suggested the data be converted into statistical figures using the SAS system. First, a correlation test was conducted to see how well each word was accurately assessed. The results of the scores of the self-assessment sheet (see Appendix H) were correlated with the results of the scores of the translation sheet (see Appendix I). Then, each person was tested how accurately they assessed themselves.

The result of the Pearson Correlation test for all the words showed the correlation between the learners' self-assessment score (0 meant they did not understand the word, 1 meant there was some understanding of the word, and 2 meant that the word was fully

understood) and the translation score (0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, and 2 meant that translations/definitions were accurate) for all the words was 55.56% with the p-value below the one out of a thousand level ($p<.0001$). The result showed that there was strong correlation between the score of the self-assessment and the true meaning of the word because the p-value is lower than 0.05, which rejects the null hypothesis (i.e., there is no difference between the score of the assessment and the score of the translation).

For each word, a correlation test was also conducted to see how well each word correlates score of the assessment (0 meant they did not understand the word, 1 meant there was some understanding of the word, and 2 meant that the word was fully understood) and the learners' true word knowledge (0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, and 2 meant that translations/definitions were accurate). The results of the Pearson Correlation test are shown in Table 1. There was a strong correlation between the score of the assessment and the score of the translation for word 2, word 3, and word 10. The correlation was 79.38% ($p<.0001$) for word 2. The correlation for word 3 was 73.03% ($p=0.006$). The correlation was 88.64% for word 10. There was a strong correlation for word 14, word 16, and word 19, however, at a lower percentage rate. The correlation for word 14 was 58.21% ($p=0.0112$). The correlation was 58.23% ($p=0.0112$) for word 16. The correlation for word 19 was 47.19% ($p=0.0480$).

Additionally, there was no variation among data for word 9 and word 11; therefore, the system was unable to calculate a correlation. This was due to a low sample

size. In addition, the scores of the assessment test and translation were not continuous data; therefore, the sign test was advised.

Table 1
Pearson Correlation Test for Each Lexical Item

Pearson Correlation Coefficients, N= 360
Prob > | r | under H0: Rho=0

Lexical Item	Pearson Correlation Coefficients	
Word 1	0.14840	p=0.5568
Word 2	0.79388	p<.0001
Word 3	0.73030	p=0.006
Word 4	-0.10847	p=0.6684
Word 5	0.15289	p=0.5447
Word 6	0.03656	p=0.8855
Word 7	0.06143	p=0.8087
Word 8	0.31623	p=0.2011
Word 9	no result*	
Word 10	0.88641	p<.0001
Word 11	no result*	
Word 12	0.43750	p=0.0694
Word 13	0.09220	p=0.7160
Word 14	0.58218	p=0.0112
Word 15	0.12127	p=0.6317
Word 16	0.58232	p=0.0112
Word 17	-0.12500	p=0.6212
Word 18	-0.09865	p=0.6969
Word 19	0.47194	p=0.0480
Word 20	-0.12964	p=0.6082

* no result: no variation among data to be able to calculate correlation

Due to the low number of participants, another correlation test, the sign test, was used instead of the t-test to measure the correlation because the sample size of this study was lower than 30 and used categorical data instead of continuous. The purpose of this correlation test is to examine if there was no difference between the assessment and the knowledge of the participants: the score of the self-assessment should match with the score of the translation to be correlated. The results of the correlation for all the words showed that there was statistically significant ($p<.0001$). This demonstrated that the L2 learners overall scored themselves differently on their assessment than their true word knowledge.

The next analysis looks at each lexical item. The results for each word are shown in Table 2. The sign test is designed for smaller samples and for categorical data and is therefore more suitable for this study instead of the t-test with considered correlated data. This tested if there was no difference in the self-assessment and the word knowledge of the participant. This is to test the hypothesis of there being no difference from the self-assessment and the word knowledge of the participants: the score of the self-assessment (0 meant they did not understand the word, 1 meant there was some understanding of the word, and 2 meant that the word was fully understood) is equal to the score of the translation (0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, and 2 meant that translations/definitions were accurate). The analysis of this test showed how well each word is assessed. If there is no difference in the assessment and the word knowledge, then the participants assessed themselves well.

Table 2
Sign Test for Each Lexical Item (Mu0=0)

Lexical Item	Statistics		p-value	
Word 1	M	2.5	Pr >= | M |	0.1250
Word 2	M	2	Pr >= | M |	0.1250
Word 3	M	2.5	Pr >= | M |	0.0625
Word 4	M	1	Pr >= | M |	0.6250
Word 5	M	1	Pr >= | M |	0.7744
Word 6	M	5.5	Pr >= | M |	0.0010
Word 7	M	3.5	Pr >= | M |	0.0654
Word 8	M	0	Pr >= | M |	1.0000
Word 9	M	6.5	Pr >= | M |	0.0002
Word 10	M	0.5	Pr >= | M |	1.0000
Word 11	M	0.5	Pr >= | M |	1.0000
Word 12	M	0	Pr >= | M |	1.0000
Word 13	M	4.5	Pr >= | M |	0.0039
Word 14	M	0	Pr >= | M |	1.0000
Word 15	M	4	Pr >= | M |	0.0215
Word 16	M	0.5	Pr >= | M |	1.0000
Word 17	M	9	Pr >= | M |	1.0000
Word 18	M	6.5	Pr >= | M |	0.0023
Word 19	M	4	Pr >= | M |	0.0215
Word 20	M	1.5	Pr >= | M |	0.3750

Mu0=0: there is no difference between the score of the self-assessment and the score of the translation
M: median

The results of the sign test for each word seen in Table 2 showed that five words were statistically significant: word 6 (p=0.001), word 9 (p=0002), word 13 (p=0.0039), word 18 (p=0.0023), and word 19 (p=0.0215). [There were also two words that were

almost significant: word 3 (p=0.0625) and word 7 (p=0.0654).] These statistically significant seven words illustrated that the L2 learners had low knowledge of these words.Furthermore, to test how well each of the L2 learners could assess themselves, a sign test was used to analyze the data. The statistical data with the results for all the participants are shown in Table 3.

Table 3
Sign Test for Each Participant (Mu0=0)

Participant	Statistics		p-value	
Participant A	M	2	Pr >= | M |	0.3877
Participant B	M	2	Pr >= | M |	0.1250
Participant C	M	1	Pr >= | M |	0.6250
Participant D	M	2.5	Pr >= | M |	0.1250
Participant E	M	-0.5	Pr >= | M |	1.0000
Participant F	M	3.5	Pr >= | M |	0.0156
Participant G	M	3.5	Pr >= | M |	0.0156
Participant H	M	2.5	Pr >= | M |	0.1250
Participant I	M	-0.5	Pr >= | M |	1.0000
Participant J	M	-1	Pr >= | M |	0.7266
Participant K	M	6	Pr >= | M |	0.0005
Participant L	M	4.5	Pr >= | M |	0.0039
Participant M	M	0	Pr >= | M |	1.0000
Participant N	M	1.5	Pr >= | M |	0.4531
Participant O	M	4.5	Pr >= | M |	0.0039
Participant P	M	6	Pr >= | M |	0.0042
Participant R	M	3.5	Pr >= | M |	0.0156
Participant S	M	4	Pr >= | M |	0.0215

Mu0=0: there is no difference between the score of the self-assessment and the score of the translation
M: median

In Table 3, there were eight participants who were statistically significant: participant F (p=0.0156), participant G (p=0.0156), participant K (p=0.0005), participant L (p=0.0039), participant O (p=0.0039), participant P (p=0.0042), participant R (p=0.0156), and participant S (p=0.0215). They had significant difference between their self-assessment and their true word knowledge.

Data Analysis

The results showed that only a few words were assessed correctly and that many participants had insufficient knowledge of which words were known and which were unknown. Therefore, a frequency test was conducted to analyze each word separately. First, Table 4 shows the frequency test for all the words. The scores for the self-assessment was labeled **pre** for pre-test: 0 meant they did not understand the word, 1 meant there was some understanding of the word, and 2 meant that the word was fully understood. The scores for the translation was labeled **post** for posttest: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, and 2 meant that translations/definitions were accurate. The difference of the two should be a score of 0, meaning that the learners self-assessed well. The results in Table 4 showed that 60.28% of the words were assessed correctly. However, on the translation score, the words were either well known (49.17%) or not known at all (45.83%). There is a drop in the percentage of known words when the participants had to provide the meanings of the words. This showed that L2 learners' knowledge of known words is high, but there are words that the learners thought they knew when actually they

had no idea of what the word meant. This problem is discussed in chapter two and is known as *deceptive transparency* (Laufer, 1997), or *mistaken identities*. The results showed that many words had this problem. However, the difference of the assessment and the true knowledge of the word were at average percentile (60.28%), showing that over half of the words (217/360) were assessed accurately. This evidence demonstrated that L2 learners have an average level of self-assessment.

Table 4
Frequency Test for All the Words

Self-assessment (pre*)

Score	Frequency	Percent
0	64	17.78
1	79	21.94
2	217	60.28

Translation (post**)

Score	Frequency	Percent
0	165	45.83
1	18	5.00
2	177	49.17

Difference (pre*-post**)

Score	Frequency	Percent
-2	4	1.11
-1	21	5.83
0	217	60.28
1	66	18.33
2	52	14.44

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

To take a step further in analyzing the data, a frequency test was conducted for each word. The results were analyzed independently as shown from Table 5 to Table 24.

Analysis of Word 1: *Damaged*

The hypothesis for the word *damaged* was that most of the L2 learners would not know the word. The results (see Table 5), however, show that 14 participants assessed themselves as knowing the word and 11 out of 18 actually knew the word.

Table 5
Frequency Test for Word 1: *damaged*

Self-assessment (pre*)

Score	Frequency	Percent
0	1	5.56
1	3	16.67
2	14	77.78

Translation (post**)

Score	Frequency	Percent
0	6	33.33
1	1	5.56
2	11	61.11

Difference (pre*-post**)

Score	Frequency	Percent
-2	1	5.56
-1	0	0.00
0	11	61.11
1	2	11.11
2	4	22.22

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Furthermore, 11 participants assessed themselves accurately (61.11%), which proves the hypothesis to be incorrect. Only six participants did not know this word, and only one participant made an accurate guess. The incorrect answers were “spoil”, “problematic”, or “effect.” These answers are in no relation to the word *damaged*, only that they are in a negative form. The six participants were on the right track, but had no true word knowledge. Therefore, the misleading clues affect their guess of the word meaning.

Analysis of Word 2: *Fragile*

The result for the word *fragile* is shown in Table 6. It was hypothesized that the word *fragile* would be a word learners would not know. As a result, the hypothesis was proven wrong: 10 participants out of 18 actually knew the word, and only six participants did not know the word. These six participants either had no clue because they did not did not fill in the blank, or thought it was a type of stone or a sightseeing area.

The six learners with incorrect guesses used insufficient clues to create their meaning of the word. The student thinking it was a type of stone had no word knowledge and made an incorrect guess. In fact, the student made an accurate assessment when the learner chose 0 (no knowledge), and made an incorrect guess, which showed the student truly did not understand the word. The student that wrote a sightseeing area would have made this guess by using the topic, which is on tourism. It seemed logically that the student used their knowledge of guessing in relation with the topic. The topic had misleading guidance in constructing word meaning.

Table 6
Frequency Test for Word 2: *fragile*

Self-assessment (pre*)

Score	Frequency	Percent
0	3	16.67
1	3	16.67
2	12	66.67

Translation (post**)

Score	Frequency	Percent
0	6	33.33
1	2	11.11
2	10	55.56

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	0	0.00
0	14	77.78
1	3	16.67
2	1	5.56

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

However, in Spanish, there is a cognate word for fragile, so most of the participants with Spanish as their first language (L1) could accurately assess themselves with the correct meaning of the word, and only one participant did not answer correctly. This showed positive transfer from their L1 to L2, demonstrating the hypothesis is correct. Overall, the results show that 14 participants (77.78%) assessed themselves well. This is a high percentile, showing that the Spanish speakers made positive transfers from their L1 to their L2.

Analysis of Word 3: *Trekking*

The next word that is analyzed was *trekking*. It was hypothesized that the learners would know the word partially and mistake it for another word. The results shown in Table 7 demonstrated that most learners did not understand the word and did not have any knowledge of the word *trekking*. Twelve participants could not understand the word; they had no clue of its meaning. Since there were no surrounding clues, there was no way of guessing what the word meant. This is the third problem that Laufer (1997) described: words that cannot be guessed with context clues.

Table 7
Frequency Test for Word 3:*trekking*

Self-assessment (pre*)

Score	Frequency	Percent
0	10	55.56
1	4	22.22
2	4	22.22

Translation (post**)

Score	Frequency	Percent
0	15	83.33
1	0	0.00
2	3	16.67

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	0	0.00
0	13	72.22
1	4	22.22
2	1	5.56

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

An astonishing finding was that the word *trekking* in Turkish was used interchangeably with the word that meant to climb. The Turkish translator stated that they also used the word *trekking*, but there is no complete translating word for *trekking*. This demonstrates that, in some languages, there are words that are not directly translated into the learners' first language. Words of the same content are used as the translated meaning in the L1, but would be different words in the L2, such as *trekking* and *climbing* mean the same in Turkish, but not in English.

Analysis of Word 4: *Like*

The fourth word, *like*, is a high frequency word. L2 learners should have basic knowledge of this word. However, the results (see Table 8) show that 4 participants did not assess themselves well. They were either wrong about knowing the word or made a correct guess. Therefore, there were only 14 participants (77.78%) that assessed themselves well. Most of the learners were precise about their word knowledge; however, there was one participant that knew the other meaning of the word, which meant resemble.

When L2 learners learn vocabulary and build word knowledge, they often know the meaning of the word, but not the correct meaning for that content. This was the case here; the participant knew the meaning of the word like, but it was not the accurate meaning for this context. This is a problem for L2 learner: when to use which meaning? Even for a word as basic as the word *like*, learners have difficulty identifying the correct meaning of the word in the context. This problem should be studied in the future.

Table 8
Frequency Test for Word 4:*like*

Self-assessment (pre*)

Score	Frequency	Percent
0	1	5.56
1	0	0.00
2	17	94.44

Translation (post**)

Score	Frequency	Percent
0	3	16.67
1	0	0.00
2	15	83.33

Difference (pre*-post**)

Score	Frequency	Percent
-2	1	5.56
-1	0	0.00
0	14	77.78
1	0	0.00
2	3	16.67

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 5: *Reefs*

The hypothesis for *reefs* was that L2 learners would not know this word because it is not frequently seen, and therefore, the learners would lack knowledge of the word. The results shown in Table 9 prove that most of the learners had no word knowledge. However, when they were assessing themselves, most participants either knew the word or had some understanding of the word; only five participants did not understand the word.

Table 9
Frequency Test for Word 5: *reefs*

Self-assessment (pre*)

Score	Frequency	Percent
0	5	27.78
1	8	44.44
2	5	27.78

Translation (post**)

Score	Frequency	Percent
0	11	61.11
1	0	0.00
2	7	38.89

Difference (pre*-post**)

Score	Frequency	Percent
-2	1	5.56
-1	4	22.22
0	6	33.33
1	4	22.22
2	3	16.67

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Seven out of eleven participants that did not know the word had no clue of what the word meant because they did not write any meaning or translation in the blank. One Spanish speaker wrote a translation with a word that did not exist in Spanish. Two Chinese speakers thought the word had some association with trees or grass. This is more evidence of how the topic can give misleading clues. L2 learners that use incorrect context clues to guess the meaning of the word would become incorrect word knowledge. Next time the two Chinese speakers encounter the word *reef*, they may mistake the word

to be associated with trees or grass because they have insufficient word knowledge. This is a lexical problem that is caused by improper guessing creating inaccurate knowledge in the vocabulary developing process.

Analysis of Word 6: *Fuels*

The word *fuels* was hypothesized as a word that would be mistaken for a noun. The results show that only one participant had some meaning of the word, and the others did not (see Table 10).

Table 10
Frequency Test for Word 6: *fuels*

Self-assessment (pre*)

Score	Frequency	Percent
0	6	33.33
1	8	44.44
2	4	22.22

Translation (post**)

Score	Frequency	Percent
0	17	94.44
1	1	5.56
2	0	0.00

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	0	0.00
0	7	38.89
1	7	38.89
2	4	22.22

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Nine participants had no idea of the meaning and eight left the blank empty with one participant stating, “I don’t know.” The L2 learners who did not have the sufficient knowledge of this word in this content wrote answers like “full”, “to encourage”, “to make fire”, and two answered in the noun form, “gasoline.” The participants did not assess themselves well on this word. Many thought they had an idea of the word or understood it well; however, the results proved they did not have sufficient knowledge of the word. It is assumed that the learners would know this word as a noun, but would not know it as a verb. Instead, it is demonstrated that the L2 learners lack total knowledge of the word.

Analysis of Word 7: *Threatened*

It was hypothesized that the word *threatened* would be a word that learners are not familiar with. The results in Table 11 show that 15 participants (83.33%) did not understand the word. They either did not fill in the blank (six participants) or made inadequate guesses, such as “now” or “to meet.” This is similar to the result of word 3, *trekking*. The learners thought they had some idea of what the word meant, but would make insufficient guesses or have completely no clue of what the word meant.

Misleading guidance and insufficient surround clues resulted in either no word knowledge or guesses that were not related to the word (see Problems for Learners). This potential problem would later hinder comprehension or create insufficient knowledge. It would become a snowball effect where lack of word knowledge influences comprehension, and then low comprehension relies on guessing to create inaccurate

knowledge. The cycle continues over and over developing insufficient vocabulary knowledge (see Problems for Learners).

Table 11
Frequency Test for Word 7: *threatened*

Self-assessment (pre*)

Score	Frequency	Percent
0	7	38.89
1	6	33.33
2	5	27.78

Translation (post**)

Score	Frequency	Percent
0	15	83.33
1	0	0.00
2	3	16.67

Difference (pre*-post**)

Score	Frequency	Percent
-2	1	5.56
-1	1	5.56
0	7	38.89
1	5	27.78
2	4	22.22

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 8: *Habits*

The next word, *habits*, would be a word learners should know because it is more frequently seen in text. The results in Table 12 show that learners do know the word. Additionally, the Spanish speakers were at an advantage of having a cognate word in Spanish. The two participants that had insufficient knowledge defined *habits* as: (1)

"interesting", which is an adjective, and (2) the Spanish word "habite", which is a verb meaning abide or inhabit in English. The latter meaning is an example of false cognates, which is one of the essential problems in vocabulary development that Laufer (1997) defined as *false friend* (see Problems for Learners).

When languages have words that look similar within the two languages, they are easily mistaken for the wrong meaning. Sometimes, the two words that look similar would have different meanings. L2 learners would assume the meaning of the false cognate and not develop the true meaning of the word.

Table 12
Frequency Test for Word 8: *habits*

Self-assessment (pre*)

Score	Frequency	Percent
0	0	0.00
1	3	16.67
2	15	83.33

Translation (post**)

Score	Frequency	Percent
0	2	11.11
1	0	0.00
2	16	88.89

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	2	11.11
0	14	77.78
1	1	5.56
2	1	5.56

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 9: *Showers*

The hypothesis for the word *showers* was that L2 learners would know the meaning of the word because shower is a frequent word. However, the results shown in Table 13 prove the hypothesis wrong. None of the participants knew what the word meant. This is a shocking discovery. It was hypothesized that the learners would know the meaning, and the learners assessed themselves as having at least some understanding of the word or having full knowledge of the word. Nevertheless, the results show that the participants had either no clue of what the word meant or insufficient knowledge.

Half of the participants did not write anything in the blank. The others wrote answers like “a person that works for the show”, “people”, “firewood”, “the show of way”, and “rain.” This is evidence that the learners studied their grammar rules well, or knew meaning of the word as rain. The grammar point of words with –er does mean some kind of person, but in the text, this grammar point is not suitable. One participant who wrote firewood was reading the text. The text did state that showers mean firewood. Still, the learner did not comprehend the writer well. The word *mean* in the text did not literally mean “to provide the meaning of the word.” Instead, the writer was stating that showers need firewood. The learner misunderstood the writer as thinking shower is equal to firewood. The participant made a logical guess of defining shower as the show of way; however, the word shower does not have this meaning. Last, rain is one of the meanings of showers, but it is not logical for rain to be related to firewood. This evidence demonstrated that L2 learners neglect the meanings of the content and use the meaning that they know when encountering words with multiple meanings.

Table 13
Frequency Test for Word 9: *showers*

Self-assessment (pre*)

Score	Frequency	Percent
0	5	27.78
1	5	27.78
2	8	44.44

Translation (post**)

Score	Frequency	Percent
0	18	100.00
1	0	0.00
2	0	0.00

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	0	0.00
0	5	27.78
1	5	27.78
2	8	44.44

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 10: *Deforestation*

The word *deforestation* would be a word learners had no knowledge of, except for Spanish speaker because there is a cognate word in Spanish. Table 14 show the results of participants either knowing the word or having no knowledge of the word. Eleven participants knew the word, which is 61.11%. The results prove that the learners assessed themselves adequately showing 94.44% was assessed accurately, which is a high percentile. Nonetheless, all the Spanish speakers had accurate knowledge, and the other

participants had no knowledge leaving the blank empty. Only one guessed the meaning of the word as firewood (see word 9:*showers* for similar problem). This demonstrated that the hypothesis was proven accurate. Learners without the cognate word in their L1 would not have any knowledge of the meaning of *deforestation*. The word is not often used and is a longer word for a beginner or an intermediate level student.

Table 14
Frequency Test for Word 10: *deforestation*

Self-assessment (pre*)

Score	Frequency	Percent
0	6	33.33
1	0	0.00
2	12	66.67

Translation (post**)

Score	Frequency	Percent
0	7	38.89
1	0	0.00
2	11	61.11

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	0	0.00
0	17	94.44
1	0	0.00
2	1	5.56

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 11: *Tourist*

It was hypothesized that the word *tourist* would be a word that all learners would know because often used, and many students may have been related to this word. The results for the word *tourist* is shown in Table 15: All the participants understood the word, and all except one had sufficient knowledge. The only one that did not have the correct meaning wrote adventurer, and the only relation that both words have are describing a type of person. The results illustrate that 94.44% were accurate in assessing themselves—demonstrating the hypothesis is correct.

Table 15
Frequency Test for Word 11:*tourist*

Self-assessment (pre*)

Score	Frequency	Percent
0	0	0.00
1	0	0.00
2	18	100.00

Translation (post**)

Score	Frequency	Percent
0	1	5.56
1	0	0.00
2	17	94.44

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	0	0.00
0	17	94.44
1	0	0.00
2	1	5.56

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 12: *Electricity*

The next word *electricity* would be a word that all learners would know because they would encounter the word in their daily life. The results prove the learners do know the word (see Table 16); nonetheless, two participants mistook the word for the adjective. This is evidence of Laufer's (1997) definition of synforms, words with similar lexical forms (see Problems for Learners).

Table 16
Frequency Test for Word 12:*electricity*

Self-assessment (pre*)

Score	Frequency	Percent
0	0	0.00
1	2	11.11
2	16	88.89

Translation (post**)

Score	Frequency	Percent
0	0	0.00
1	2	11.11
2	16	88.89

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	1	5.56
0	16	88.89
1	1	5.56
2	0	0.00

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Although the learners have word knowledge, the word form is the second step in vocabulary development (see Learning Strategies in Vocabulary Learning). Usually, learners would use strategies to identify the word form to create the meaning of the word. In this case, the learners knew the meaning of the word, but not the word form.

Analysis of Word 13: *Local*

The result of word 13, *local*, is shown in Table 17. The results show that the hypothesis of the word local would be mistaken for an adjective is proven true.

Table 17
Frequency Test for Word 13: *local*

Self-assessment (pre*)

Score	Frequency	Percent
0	0	0.00
1	1	5.56
2	17	94.44

Translation (post**)

Score	Frequency	Percent
0	3	16.67
1	7	38.89
2	8	44.44

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	0	0.00
0	9	50.00
1	6	33.33
2	3	16.67

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Nonetheless, all participants stated that they understood the word or at least had some knowledge of it: 44.44% had sufficient word knowledge, and 50% of the participants accurately assessed themselves.

However, the results show that three participants did not have knowledge of the word. In fact, they thought the word meant “a place” or “a quantity.” Some participants that had some knowledge wrote the meaning as an adjective. This illustrated that learners have the lexical problem of differentiating words that have the same spelling and used for different parts of the speech.

Analysis of Word 14: *Villagers*

The hypothesis for the word *villagers* was that learners would know this word. The results are shown in Table 18. The results illustrate that 66.67% had accurate word knowledge. There were only two participants that did not write anything showing they had no word knowledge.

However, three participants that did show word knowledge misunderstood the meaning as being “village”, a place and not a person. This evidence again showed how synforms can create insufficient knowledge, also seen in word 12:*electricity*. These learners have partial knowledge, but lack the word form.

The learners’ assessed themselves at 55.56% accuracy. Only ten participants assessed themselves well of their knowledge of the word; therefore, half of the participant were accurate about their knowledge of this word.

Table 18
Frequency Test for Word 14:*villagers*

Self-assessment (pre*)

Score	Frequency	Percent
0	2	11.11
1	5	27.78
2	11	61.11

Translation (post**)

Score	Frequency	Percent
0	3	16.67
1	3	16.67
2	12	66.67

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	4	22.22
0	10	55.56
1	4	22.22
2	0	0.00

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 15: *Wells*

The word *wells* would be a word that the learners would know. Although there are not many water wells seen in this time period, the word is still used. The results (see Table 19) prove the hypothesis completely wrong: 94.44% did not know the meaning of the word. Eight participants assess themselves not knowing the word. However, there were 13 participants did not truly know the meaning of the word, had no clue of the meaning, and did not write in the blank.

This is the word with the most blank spaces—over half of the participants had no idea of what the word meant. This is evidence that the meaning of the word could not be guessed, and most learners did not bother to predict its meaning (see Problem for Learners). Without sufficient clues surrounding the text, the learners had no way of guessing what the word meant. Therefore, they could not comprehend this word. This lexical problem would also mean that the learners do not encounter this word often because they do not see wells nowadays. This would be the main cause of their lack in word knowledge of this word.

Table 19
Frequency Test for Word 15: *wells*

Self-assessment (pre*)

Score	Frequency	Percent
0	8	44.44
1	8	44.44
2	2	11.11

Translation (post**)

Score	Frequency	Percent
0	17	94.44
1	0	0.00
2	1	5.56

Difference (pre*-post**)

Score	Frequency	Percent
-1	1	5.56
0	8	44.44
1	7	38.89
2	2	11.11

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word 16: *Decade*

It was hypothesized that the word *decade* would be a word that learners would know. Table 20 shows the results: Three participants thought they did not know the word, and the rest had some understanding of the word. However, only 72.22% assessed themselves accurately. Most participants understood the word well. A few associated the word with years. Yet, one participant was confused with a "hundred years", another participant thought it meant a "type of object", and one left the blank clear.

Table 20
Frequency Test for Word 16:*decade*

Self-assessment (pre*)

Score	Frequency	Percent
0	3	16.67
1	2	11.11
2	13	72.22

Translation (post**)

Score	Frequency	Percent
0	5	27.78
1	1	5.56
2	12	66.67

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	2	11.11
0	13	72.22
1	1	5.56
2	2	11.11

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

An interesting fact that the Turkish translator stated was that the translated word of *decade* in Turkish is not used often; thus, it is not known well. This is true in Chinese too, and there is no translated word for *decade*, only the meaning. In contrast, Spanish has a cognate word, *decada*. This is a positive transfer into English, whereas, the other participants would not know the word well because there is no cognate in their language (see also word 2:*fragile* and word 10:*deforestation*). This is evidence of how cognate words in L1 and L2 would facilitate word knowledge, whereas, language without cognates would need to rely on guessing.

Analysis of Word 17: *Biggest*

It is assumed that all learners would know the word *biggest* because it is frequently used and is taught at the beginning level. The results seen in Table 21 show that only two participants did not know the word. The learners assessed themselves well (77.78%). It is proven that the hypothesis was mostly correct, with only two participants who lack the word knowledge.

On the self-assessment, two participants had partial knowledge of the word. For such a basic word, this shows evidence that not all basic words or frequent words are well known to the learners. Therefore, L2 learners often need to repeatedly learn the words until they develop full knowledge of the word and are confident of their knowledge of the word.

Table 21
Frequency Test for Word 17: *biggest*

Self-assessment (pre*)

Score	Frequency	Percent
0	0	0.00
1	2	11.11
2	16	88.89

Translation (post**)

Score	Frequency	Percent
0	2	11.11
1	0	0.00
2	16	88.89

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	2	11.11
0	14	77.78
1	0	0.00
2	2	11.11

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Analysis of Word Phrase 18: *Broken Out*

The hypothesis for the word phrase *broken out* was that learners would misunderstand the meaning because of its idiomatic meaning. The results (see Table 22) show that most participants had some understanding of the word phrase, and a few thought they knew the word phrase.

Table 22
Frequency Test for Word Phrase 18:*broken out*

Self-assessment (pre*)

Score	Frequency	Percent
0	1	5.56
1	10	55.56
2	7	38.89

Translation (post**)

Score	Frequency	Percent
0	15	83.33
1	1	5.56
2	2	11.11

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	2	11.11
0	1	5.56
1	9	50.00
2	6	33.33

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Nonetheless, 15 participants did not have sufficient word phrase knowledge, and only one participant correctly assessed him/herself—proving the hypothesis adequate. Many of the answers were “divide” or “to damage/ destroy.” This evidence demonstrated that misleading context clues create insufficient meaning of the word phrase. These participants did not guess correctly at what the word phrase meant, yet the meaning they created could be comprehended well with the text. This demonstrated that L2 learners develop false meanings because it is comprehendible in the text. When they develop

insufficient word phrase knowledge, they would continue with the incorrect meaning until they realize that the meaning is not accurate (see Problems for Learners).

Analysis of Word 19: *Launched*

It was hypothesized that the word *launched* was a word learners misread and create false meanings of the word. The results (see Table 23) prove the hypothesis sufficient because the learners assessed themselves at a low percentile (44.44%).

Table 23
Frequency Test for Word 19:*launched*

Self-assessment (pre*)

Score	Frequency	Percent
0	6	33.33
1	8	44.44
2	4	22.22

Translation (post**)

Score	Frequency	Percent
0	15	83.33
1	0	0.00
2	3	16.67

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	1	5.56
0	8	44.44
1	7	38.89
2	2	11.11

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Only three participants knew the meaning of the word *launched*. The results also show that 83.33% of the participants did not know the meaning of the word. Most learners did not write any meaning; the others wrote answers such as “celebrate”, “enjoy”, “made”, “reach”, or “declare”. This demonstrated various degree of meaning built from using surrounding clues. All the answers could fit the meaning and be comprehended fluently within the text. However, the insufficient knowledge would interfere in developing vocabulary, also seen in word 18:*broken out* (see Problems for Learners).

Analysis of Word 20: *Complex*

The hypothesis for the word *complex* was all learners would know the word. The results are shown in Table 24. Most of the participants understood the word; however, there were four participants that did not have knowledge of the word. The following were their answers: “complete”, “change”, and “community.”

Although there is a cognate word in Spanish, the synforms in Spanish were confusing when translating. Some wrote “complejo,” which is the translation of complex, and two wrote “completo,” which is the correct translation of complete. This showed that lexical problems of false cognates interfere translation.

Only one participant did not write an answer. The results show that 72.22% of the participants assessed themselves correctly. Four participants thought they had knowledge of the word, when in fact they did not have knowledge of the word.

Table 24
Frequency Test for Word 20: *complex*

Self-assessment (pre*)

Score	Frequency	Percent
0	0	0.00
1	1	5.56
2	17	94.44

Translation (post**)

Score	Frequency	Percent
0	4	22.22
1	0	0.00
2	14	77.78

Difference (pre*-post**)

Score	Frequency	Percent
-2	0	0.00
-1	1	5.56
0	13	72.22
1	0	0.00
2	4	22.22

*Score of pre: 0 meant the word was not understood by the learner, 1 meant there was some understanding of the word, 2 meant that the word was fully understood
**Score of post: 0 meant that the translations/definitions were irrelevant, 1 meant that the translations/definitions were partially correct, 2 meant that translations/definitions were accurate

Summary of All the Words

The analysis of the data collected illustrated how each word was assessed. The word that had the lowest percentile (5.56%) was *broken out*. This seemed logical because L2 learners have had many problems comprehending idioms and phrases with idiomatic meanings (meanings that are other than its literal meaning). Eight words had low self-assessment (27.78%~55.56%): *reefs*, *fuels*, *threatened*, *showers*, *local*, *villagers*, *wells*, and *launched*. The word *showers*, which would seem to be used daily, was surprisingly

unknown to the learners. There were eight words that were assessed better (61.11%~77.78%): *damaged, fragile, trekking, like, habits, decade, biggest,* and *complex*. The words that were assessed most accurately (88.89%~94.44%) were *deforestation, tourist,* and *electricity*. Overall, only about half of the words were assessed well. This demonstrated that the participants did not assess themselves well.

The factor analysis was not conducted because analyzing the frequency test provided abundant data. In addition, analysis of each word was done in detail. For future studies, perhaps analyzing if lexical items are factors in self-assessment would provide more insight on how well learners identify their word knowledge.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS, AND IMPLICATIONS

Summary

The purpose of this study is to investigate how well L2 learners assess themselves at identifying known and unknown words. This study examined eighteen L2 learners at the intermediate proficiency level to understand how accurately they could identify words they knew versus words they did not know. The results of the study demonstrated that many basic words are well understood by the students. However, the lexical problems that interfere in reading comprehension were also seen in many of the results. Many of the problems referred to Laufer's (1997) investigation of lexical problems, thus proving that L2 learners have less success in guessing or using context clues. The data analysis illustrated that L2 learners have low ability in "noticing" unknown words, only 45% of these words were assessed accurately. The participants did not assess themselves well. The analysis showed the importance of "noticing" and recognizing unfamiliar words. If L2 learners do not take the initial step of awareness, they will not develop sufficient word knowledge.

Discussion

Results from this study are similar to the findings of Laufer and Yano (2001).

Laufer and Yano discovered that learners did not assess themselves well. This study also showed that learners do not assess themselves accurately. Out of the twenty words chosen from the text, only nine were assessed well. In Laufer and Yano's words, "noticing unknown words, success in inferring meaning from context and dictionary use cannot be taken for granted" (p. 560). In addition, learners should be more aware of their word knowledge of the text (Laufer & Yano, 2001).

Lexical problems were evident in the data analysis. Many of the problems were that students thought they understood the word, but when tested, they did not know or did not have full knowledge of the word. Words such as *showers* were interpreted as a person who shows or rain, but in fact in the test it referred to the usual "bath" meaning. This is an example of how second language learners could misinterpret or have no clue what the word means, even if it a basic word. This was the essential problem that L2 learners encountered.

There were over five words that learners would make incorrect guesses using context clues or could even guess from context. The word *launched* had the most guesses, and the word *wells* had the fewest attempts. Another problem was when learners encountered words that had misleading clues. For example, the word *reefs* was identified in relation to "grass" and "trees" because the text was discussing nature. The learners were confused about the word forms of three words: *electricity, local, and villager*. These are example of problems with synforms (words with similar lexical forms). A problem that a few learners had was with words that have more than one meaning. For example, the word *like* in the text means such as, but the learner wrote resemble. The problem that

appeared the least is encountering words with false cognates. This type of lexical problem could become serious. One learner wrote “habites” for the meaning of the word *habits*; however, the Spanish word *habites* does not mean “habits.” The learner built insufficient word knowledge. All lexical problems create insufficient vocabulary, and learners with misinterpreted word knowledge will create more problems in comprehending the text.

For this study, the words were assumed known for the level of the learners by the researcher. On the contrary, many learners had not developed sufficient knowledge of the word. Therefore, much of the result proved some hypotheses incorrect. Teachers also assume the knowledge of words that learners should know, and they expected them to know the amount of vocabulary for their level. Although teacher assumes the level of vocabulary that students should know, learners do not truly know all the words at the expected level.

Research has shown that vocabulary is important and that teachers should give plenty of vocabulary instruction. To add to this suggestion, teachers should also teach words that are assumed as known words because not all learners know the word. Words as easy as *like* should also be taught because these words can easily be misread. Teachers should provide practices for even the basic words because these words often have multiple meaning, and students tend to get mixed up when reading. Waring (2001) stated that the vocabulary learned before are the most important ones to work on. Moreover, it is suggested to teachers that the learning exercises should train learners to become more independent in addition to building new knowledge.

Conclusion

Vocabulary plays a critical role in second language acquisition, especially reading. If the learner cannot comprehend a word, then the learner faces difficulties in reading comprehension. Vocabulary learning strategies often are used to facilitate the learning process; however, they can also hinder the process if L2 learners do not reach the level of proficiency. The "guessing strategy" as discussed before is an essential vocabulary learning strategy for L2 learners to used when encountering unknown words. On the other hand, they must be able to comprehend most of the text to do so.

Furthermore, teachers should be aware of the importance of L2 learners' ability in recognizing unknown words. If L2 learners do not know they do not understand the meaning of the word, they will not take the opportunity to learn the word. The problem becomes critical when learners misread or misinterpret the word and think they know the word, but in reality, they do not have the sufficient word knowledge. The learner would develop false word knowledge rather than learning the real definitions of the vocabulary words. Therefore, it is essential to assist learners in learning the true meaning of words.

Lastly, guessing is a strategy used only when there are a few words unfamiliar in the text. This strategy should be trained when the learners know more than half the words. Without the threshold vocabulary, the guessing strategy should not be advised as an essential strategy. The disadvantages of using this strategy when not prepared are misleading knowledge and misinterpretation of words, which constructs false knowledge. Strategies are to facilitate learning, not create problems. Teachers should advise L2 learners to develop vocabulary before using the guessing strategy.

Implications and Recommendations for Future Research

This study showed that English as Second Language (ESL) teachers, as well as learners, should not underestimate the importance of vocabulary. Instead, they should understand the importance of vocabulary: L2 learners need a large vocabulary to be able to succeed well in any language skill, especially in reading. Vocabulary development is difficult when learning a second language and can cause comprehension problems in reading. Furthermore, ESL teachers should provide more material and more activities in vocabulary in class rather than focusing more on the importance in grammar.

Additionally, second language learners need to learn to identify words that are truly unknown to them. They need to know that they must "notice" that they do not know the word in order to know that they must learn it. Hence, if they do not "notice" the word as unknown, they will develop an incorrect meaning or "mistaken identity" of the word and continue comprehending with the mistaken knowledge stored in the brain. The mistaken knowledge will take place until the learners realize the assumed word knowledge was an error, or incorrect. Learners also need to develop a wide range of strategies for academic reading comprehension skills, and not rely solely on context clues for the "guessing" strategy.

Teachers should understand the importance of vocabulary in second language learning, and bring more activities to facilitate vocabulary building. Although reading is the most important skill out of the four language skills used in the academic environment, vocabulary is the key to success, especially when reading is so critical for L2 learners at the tertiary level.

Furthermore, second language learners should understand the importance of knowing or “noticing” the word as not truly understood. Noticing a new word is the first step in the vocabulary learning process. If students do not take the initial step, then comprehension is lowered. Teachers can help train students more in the area of “noticing” vocabulary words. Many teaching pedagogies also have plenty of suggestions in this area.

This study has shown that many lexical problems do influence reading, even in identifying words. Future research should be conducted in understanding how learners can be more aware of their vocabulary skills, and how teachers can assist in training learners in self-awareness. Another suggestion for research is to analyze words with multiple meanings. Learners often learn one meaning of the word and try to implement the meaning into the text to comprehend, but they face insufficient comprehension and more lexical problems. Exploring how learners develop the adequate meaning of words with various definitions could help learners that baffle in finding the accurate meaning.

The final suggestion of research is that there should be more studies on the comparison of the teacher’s knowledge of what words learners do know and do not know to what learners actually do know and do not know. This would help teachers evaluate their vocabulary instruction: Are we teaching the words that learners do not understand? Or are we just assuming words they should understand, but truly do not know and should be taught?

APPENDIX A

THE TEXT MATERIAL

The Politics of Travel

The Nation *by David Nicholson-Lord*

Tourism has seriously **damaged** many of the **fragile** ecosystems like the Alps – the winter skiing playground of Europe and the **trekking** areas of the Himalayas. Worldwide, it poses a serious threat to coastal habitats **like** dunes, mangrove forests, and coral **reefs**. It **fuels** a booming and usually illegal trade in the products of **threatened** wildlife, from tortoise-shell and coral to ivory.

Its "consumers" inevitably bring their **habits** and expectations with them – whether it's hot showers and flush toilets or well-watered greens for golfers. In the Himalayas, **showers** for trekkers often mean firewood, which means **deforestation**. In Hawaii and Barbados, it was found that each **tourist** used between six and ten times as much water and **electricity** as a **local**. In Goa, **villagers** forced to walk to **wells** for their water had to watch as a pipeline to a new luxury hotel was built through their land. Over the past **decade** golf, because of its vast appetite for land, water, and herbicides, has emerged as one of the **biggest** culprits, so much so that "golf wars" have **broken out** in parts of Southeast Asia; campaigners in Japan, one of the chief exponents of golf tourism, have **launched** an annual World No Golf Day. This is not to say tourism can't do some good – but the cost-benefit equation is **complex**.

APPENDIX B

SELF-ASSESSMENT SHEET

Class: _____ **Sex:** M F **Native Language: _____**

Look at the following words. They are in bold letters in the text. For each word, say whether you understand its meaning as used in the text, or not.
Rate your understanding by circling the appropriate number for each word:

0 – don't understand **1** – understand approximately **2** – fully understand

	Word	Line Number	Word Understanding
1.	**Damaged**	1	0. 1. 2.
2.	**Fragile**	1	0. 1. 2.
3.	**Trekking**	2	0. 1. 2.
4.	**Like**	3	0. 1. 2.
5.	**Reefs**	4	0. 1. 2.
6.	**Fuels**	4	0. 1. 2.
7.	**threatened**	5	0. 1. 2.
8.	**Habits**	7	0. 1. 2.
9.	**Showers**	9	0. 1. 2.
10.	**deforestation**	10	0. 1. 2.
11.	**Tourist**	10	0. 1. 2.
12.	**Electricity**	11	0. 1. 2.
13.	**Local**	11	0. 1. 2.
14.	**Villagers**	12	0. 1. 2.
15.	**Wells**	12	0. 1. 2.
16.	**Decade**	13	0. 1. 2.
17.	**Biggest**	15	0. 1. 2.
18.	**broken out**	15	0. 1. 2.
19.	**Launched**	17	0. 1. 2.
20.	**Complex**	18	0. 1. 2.

APPENDIX C

TRANSLATION/EXPLANATION SHEET

Class: _____ **Sex:** M F **Native Language: _____**

Translate the following words into your native language or explain them in English. Look at the text to see what the words mean in the text and translate them accordingly.

	Word	Line Number	Explanation in English OR Translation in your Language
A	**damaged**	1	
B	**fragile**	1	
C	**trekking**	2	
D	**like**	3	
E	**reefs**	4	
F	**fuels**	4	
G	**threatened**	5	
H	**habits**	7	
I	**showers**	9	
J	**deforestation**	10	
K	**tourist**	10	
L	**electricity**	11	
M	**local**	11	
N	**villagers**	12	
O	**wells**	12	
P	**decade**	13	
Q	**biggest**	15	
R	**broken out**	15	
S	**launched**	17	
T	**complex**	18	

APPENDIX D

IRB APPROVAL FORM

THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

PRINCIPAL INVESTIGATOR(S): Ms. Chai-Wei Lin **IRB #: 05-2607**

PROJECT TITLE: How Well Can Second Language Learners Recognize Unknown Vocabulary?

[X] New project submission [ ] Resubmission of lapsed project #_____
[ ] Continuing review of lapsed project #____ [ ] Continuing review of #_____
[ ] Study expires _____ [ ] Initial submission was approved by expedited review
[ ] Initial submission was approved by full board review but continuing review can be expedited
[ ] Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified _____

Chair
[ ] Expedited Approval
Dated: _____
Cite how qualifies for expedited review:
minimal risk and ~~#1~~

IRB Co-Chairs:
Signed: _____
Dr. Sophia Dziegielewski

[x] Exempt
Dated: 5/23/05
Cite how qualifies for exempt status:
minimal risk and #1

Signed: _____
Dr. Jacqueline Byers

[ ] Expiration
Date: _____

[x] Waiver of documentation of consent approved
[ ] Waiver of consent approved

NOTES FROM IRB CHAIR (IF APPLICABLE): If the researcher requests a waiver of documentation of consent can be granted. In this case it would qualify for Exempt review. If not, more detail is needed on how consent form will be handled/stored, etc.

Student questionnaire is not attached and needs to be reviewed prior to approval.

Revised consent information sheet with signature lines removed received 5/23/05.BW

APPENDIX E

IRB APPROVAL LETTER

University of Central Florida

Office of Research & Commercialization

May 23, 2005

Chai-Wei Lin
1233 Selma Avenue
Orlando, FL 32825

Dear Ms. Lin:

The University of Central Florida's Institutional Review Board (IRB) received your protocol IRB #2607 entitled, "How Well Can Second Language Learners Recognize Unknown Vocabulary?". The IRB Chair did not have any concerns with the proposed project and has indicated that under federal regulations this research conducted in established or commonly accepted educational settings, involving normal educational practices, is exempt from review by our IRB, so an approval is not applicable and a renewal within one year is not required.

Please accept our best wishes for the success of your endeavors. Should you have any questions, please do not hesitate to call me at 407-823-2901.

Cordially,

Barbara Ward

Barbara Ward, CIM
IRB Coordinator

Copies: IRB File

12443 Research Parkway • Suite 302 • Orlando, FL 32826-3252 • 407-823-3778 • Fax 407-823-3299

APPENDIX F

LETTER FROM LANGUAGE LEARNING CENTER

From: Keith Folse
To: Keith Folse
Date: 5/2/2005 3:05:36 PM
Subject: Fwd: Re: TESOL thesis data needed...

Myrna M. Creasman
Director
Center for Multilingual Multicultural Studies
407-823-5455
mcreasma@mail.ucf.edu

Keith,

Yes, Chai-Wei can conduct her study here at CMMS.

Our summer enrollment is not huge but enough to pay the groceries and utilities.

Myrna

Keith S. Folse, Ph.D.
Coordinator, MA TESOL Program
University of Central Florida

>>> Keith Folse 04/22/05 2:26 PM >>>
Myrna,

I'm writing as Chair of the thesis committe for Chai-Wei Lin, who was actually a student at CMMS last summer. For her thesis on language acquisition, she needs to survey 2 or 3 classes at CMMS. The best level for her study is intermediate or advanced. I'm thinking that maybe levels 3 and 4 could be in her study.

Question: We just sat down and looked carefully at UCF's summer schedule as well as the summer schedule for CMMS. Please advise us of a good time to collect this data.

I know it's too early to commit to this for sure, but as Chair of her committee, I wanted to write you to ask if you are willing to let her (and me) collect this data from your students. (Chai-Wei is of course going through the proper channells with the IRB [Human Subjects Permissions].)

Hope you have a HUGE enrollment for summer !!

Keith

Keith S. Folse, Ph.D.
Coordinator, MA TESOL Program
University of Central Florida

Myrna M. Creasman
Director
Center for Multilingual Multicultural Studies

APPENDIX G

APPROVED CONSENT FORM

REVISED
5/23/05 BW

May 20, 2005

Dear Student:

I am a graduate student at the University of Central Florida. I am conducting research as part of my thesis. The purpose of the research is to study how second language is learned. I am asking you to participate in this research lasting no longer than 30 minutes. You will not have to answer any question you do not wish to answer. Your identity will not be revealed in any part of the research. You must be 18 years of age or older to participate in this research study.

There are no anticipated risks, compensation or other direct benefits to you as a participant in this research. You are free to withdraw your consent to participate at any time without consequence.

If you have any questions about this research project, please contact me at (407) 256-6049. My faculty supervisor is Dr. Keith Folse. Questions or concerns about research participants' rights may be directed to the UCFIRB office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The phone number is (407) 823-2901.

Sincerely,

Chai-Wei Lin

APPROVED BY
University of Central Florida
Institutional Review Board
SFD 23 May 2005
CHAIRMAN

APPENDIX H

SCORES OF SELF-ASSESSMENT

Results of the scores of the self-assessment

participant / word	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	0	2	2	2	1	2	2	2	2	2	2	2	2	2	2	1	2	1
2	2	2	2	2	2	2	2	2	2	2	2	2	0	1	1	0	1	0
3	1	2	2	0	0	0	1	0	0	0	1	0	0	0	1	2	0	2
4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
5	0	2	1	1	0	2	2	1	0	1	2	1	1	0	0	1	1	2
6	0	0	1	1	0	0	1	1	0	1	1	2	2	1	0	2	2	1
7	0	2	1	0	0	1	0	0	0	1	1	2	0	2	1	2	2	1
8	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	1	2	2
9	2	2	1	1	0	0	2	2	0	1	2	2	0	0	2	1	2	1
10	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	2	0	0
11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2
13	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2
14	1	2	2	2	0	2	2	2	0	1	1	2	2	2	2	1	2	1
15	1	2	0	2	0	0	1	1	0	0	1	0	0	1	1	1	0	1
16	2	2	2	2	2	0	2	2	1	1	2	2	2	2	0	2	2	0
17	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2
18	1	1	1	1	2	1	2	2	1	1	1	2	1	2	2	1	2	0
19	1	0	2	1	0	1	0	0	1	0	1	2	1	2	1	1	2	0
20	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2

0: the learner did not understand the word
1: there was some understanding of the word
2: that the word was fully understood

APPENDIX I

SCORES OF TRANSLATIONS

Results of the scores of the translations

participant / word	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	2	2	2	0	1	2	2	2	0	2	0	0	2	2	2	0	2	0
2	2	2	2	2	2	2	2	2	0	2	2	1	0	0	0	0	1	0
3	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4	2	2	2	2	2	2	2	0	0	2	2	2	2	2	2	2	2	0
5	0	2	2	2	0	0	2	2	2	2	0	0	0	0	0	0	0	0
6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	2	0
8	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	0	2	2
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0
11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
12	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2
13	1	2	2	2	2	2	1	1	2	2	0	2	0	1	1	1	1	0
14	0	2	2	2	1	1	2	2	0	2	0	2	2	2	1	2	2	2
15	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
16	1	2	2	2	2	0	2	2	2	2	2	0	2	2	0	0	2	0
17	2	2	2	2	2	0	0	2	2	2	2	2	2	2	2	2	2	2
18	0	0	0	0	0	0	0	1	2	0	0	0	2	0	0	0	0	0
19	0	0	2	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
20	2	2	2	2	2	2	2	2	0	2	0	0	2	2	2	2	2	0

0: the translations/definitions were irrelevant
1: the translations/definitions were partially correct
2: translations/definitions were accurate

REFERENCES

August, D. et al. (2005). The critical role of vocabulary development for English language learners. Learning Disabilities Research and Practice, 20 (1), 50-57

Bogaards, P. (2001). Lexical units and the learning of foreign language vocabulary. Studies in Second Language Acquistion, 23, 321-343.

Clark, E. (1993). The lexicon in acquisition. Cambridge: Cambridge University Press.

Coady, J. (1987). Research on ESL/EFL vocabulary acquisition: Putting it in context. In T. Huckin, M. Haynes, & J. Coady (Eds.), Second language reading and vocabulary learning. Norwood, NJ: Ablex, pp. 3-23.

Critchley, M. (1998). Reading to learn: Pedagogical implication of vocabulary research. The Language Teacher. Retrieved on May 31, 2005 from http://www.jalt-publications.org/tlt/files/98/dec/critchley.html.

de Groot, A. M. B. (2002). Lexical representation and lexical processing in the L2 user. In V. Cook (Ed.), Portraits of the L2 User (pp. 29-63). Clevedon: Multilingual Matters.

Diaz-Rico, L. T. (2004). Teaching English learners: Strategies and methods. USA: Pearson Education.

Dycus, D. (1997). Guessing word meaning from context: Should we encourage it? Literacy Across Cultures, 1 (2). Retrieved on April 7, 2005 from http://www2.aasa.ac.jp/~dcdycus/LAC97/guessing.htm.

Fan, M. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: A study of Hong Kong learners. The Modern Language Journal, 87 (2), 222-241.

Folse, K. (2004a). Vocabulary myths: Applying second language research to classroom teaching. Ann Arbor: University of Michigan.

Folse, K. (2004b). Myths about teaching and learning second language vocabulary: what recent research says. TESL Reporter (37) 2, 1-13.

Fraser, C. (1999). Lexical processing strategy use and vocabulary learning through reading. Studies in Second Language Acquisition, 21, 225-241.

Golinkoff, R, & Hirsh-Pasek, K. (2000). Word learning: Icon, index, or symbol? In R. Golinkoff et al. (Eds.). Becoming a word learner: A debate on lexical acquisition. New York: Oxford University Press.

Grabe, W., & Stoller, F. (1997). Reading and vocabulary development in a second language. In J. Coady and T. Huckin (Eds.), Second language vocabulary acquisition: A rationale for pedagogy. New York, NY: Cambridge University Press, pp. 98-12

Gu, Y., & Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. Language Learning, 46 (4), 643-679

Hatch, E. & Brown, C. (1995). Vocabulary, semantics, and language education. New York: Cambridge Press.

Haynes, M. (1993). Patterns and perils of guessing in second language reading. In T. Huckin, M. Haynes, & J. Coady (Eds.), Second language reading and vocabulary acquisition. Norwood, NJ: Ablex. pp. 46-62

Huckin, T., & Bloch, J. (1993). Strategies for inferring word-meaning in context: A cognitive model. In T. Huckin, M. Haynes, & J. Coady (Eds.), Second language reading and vocabulary learning. Norwood, NJ: Ablex, pp. 153-178

Hughes, G. & Chinn, C. (1986). Building reading vocabulary through inference: A better classification of context clues. In B. Snyder et al. (Eds.), Second language acquisition: Preparing for tomorrow. Lincolnwood, IL: National Textbook Company, pp. 93-108

Kojic-Saro, I., & Lightbrown, P. (1999). Students' approaches to vocabulary learning and their relationship to success. The Modern Language Journal, 83 (2), 176-192

Laufer, B. (1997). The lexical plight in second language reading. In J. Coady and T. Huckins (Eds.), Second language vocabulary acquisition, pp. 20-34, Cambridge: Cambridge University Press.

Laufer, B. (2003). Vocabulary acquisition in a second language: Do learners really acquire most vocabulary by reading? Some empirical evidence. The Canadian Modern Language Review, 59 (4), 567-587

Laufer, B. & Yano, Y. (2001). Understanding unfamiliar words in a text: Do L2 learners understand how much they don't know? Reading in a Foreign Language, 13 (2), 549-566.

Laufer, B. et al. (2004). Size and strength: Do we need both to measure vocabulary knowledge?. Language Testing, 21 (2), 202-226.

Nation, I. S. P. (2001). Learning vocabulary in another language. New York: Cambridge University Press.

Paribakht, T., & Wesche, M. (1997). Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition. In J. Coady and T. Huckins (Eds.), Second language vocabulary acquisition, pp. 174-200, Cambridge: Cambridge University Press.

Parry, K. (1997). Vocabulary and comprehension: Two portraits. In J. Coady and T. Huckins (Eds.), Second language vocabulary acquisition, pp. 55-68, Cambridge: Cambridge University Press.

Peregoy, S., & Boyle, O. (2000). English learners reading English: What we know, what we need to know. Theory into Practice, 39 (4), 237-247.

Qian, D. (1999). Assessing the roles of depth and breadth of vocabulary knowledge in reading comprehension. The Canadian Modern Language Review, 56(2). Retreived on May 31, 2005 from http://www.utpjournals.com/product/cmlr/562/562-Qian.html

Segler, T., Pain, H., & Sorace, A. (2002). Second language vocabulary acquisition and learning strategies in ICALL environment. Computer Assisted Language Learning, 15 (4), 409-422.

Schmitt, N. (2000). Vocabulary in language teaching. New York: Cambridge University Press.

Tschirner, E. (2004). Breadth of vocabulary and advanced English study: An empirical investigation. Electronic Journal of Foreign Language Teaching, 1 (1), 27-39. Retrieved on May 31, 2005 from http://e-flt.nus.edu.sg/v1n12004/tschirner.htm

Waring, R. (1995). Second language vocabulary acquisition, linguistic context and vocabulary task design. Retrieved May 31, 2005 from http://www1.harenet.ne.jp/~waring/papers/BC.html

Waring, R. (2001). How should teachers incorporate vocabulary teaching into their classes? Retrieved on May 31, 2005 on http://www1.harenet.ne.jp/~waring/papers/eltnews.html

Waring, R. (2002). Scales of vocabulary knowledge in second language vocabulary assessment. Retrieved on May 31, 2005 from http://www1.harenet.ne.jp/~waring/papers/scales.htm